

APPENDIX F

Investigation-Derived Waste Management Reports

THIS PAGE INTENTIONALLY LEFT BLANK.



July 1, 2016

Ms. Katie Tait, OHARNG
Camp Ravenna
1438 State Route 534 SW
Newton Falls, OH 44444

References: **Contract No. W912QR-12-D-0020, Delivery Order 0008, 2013 Performance-Based Acquisition (PBA) for Supplemental Remedial Investigations (RI)/Feasibility Reports (FSs) for Multiple AOCs at the Ravenna Army Ammunition Plant (RVAAP), Ravenna, Ohio**
Contract No. W912QR-15-C-0046, Completion of RI, FS, PP, and ROD Documents, Multiple Areas of Concern, Former RVAAP Restoration Program

Subject: **Investigation-Derived Waste (IDW) Characterization and Disposal Plan**

Dear Ms. Tait:

Investigative activities in accordance with the following plans were performed from May 16, 2016 through May 18, 2016:

- 1) *PBA 2013 Sample and Analysis Plan Addendum for Surface Water and Sediment at Load Lines 1, 2, 3, and 4* (April 2016) (herein referred to as the 2016 SAP Addendum).
- 2) *Letter Work Plan for Pre-Delineation Sampling of Lead-Contaminated Sediment in the Load Line 2 Functional Area* (May 2016).

These activities have resulted in the generation of IDW consisting of soil cuttings and equipment decontamination fluids. The purpose of this letter is to characterize and classify IDW for disposal and to propose methods for disposing the IDW.

This letter report includes a summary of IDW generated, the origin of the IDW (Table 1), as well as proposed classification and recommendations for disposal of the IDW (Table 2). In addition to the specified plans, this letter report follows guidance established by the *Facility-Wide Sampling and Analysis Plan* (USACE 2011) (herein referred to at the Facility-wide SAP).

Two distinct IDW streams were sampled as part of the field activities. Each waste stream was composited and sampled on May 18, 2016 per requirements outlined in Section 7.0 of the Facility-wide SAP.

IDW streams generated are:

- One (1), 55-gallon drum containing equipment decontamination fluids containing liquinox wash water, 2% hydrochloric acid (HCl), 10% nitric acid, isopropanol, and DI water; and
- One (1), 55-gallon drums containing soil and sediment.

Table 1. Summary of Sampled Investigation-Derived Wastes

| Container Number | Container Type and Size | Contents | Generation Date | Sample ID | Date Sampled |
|------------------|-----------------------------------|------------------|-----------------------|-------------------|--------------|
| Leidos-2016-01 | 55 Gallon, Steel, Open Top Drum | Soil Cuttings | 5/16/2016 – 5/18/2016 | PBA13-IDW-2541-WS | 5/18/2016 |
| Leidos-2016-02 | 55 Gallon, Steel, Closed Top Drum | Decon Wash Water | 5/16/2016 – 5/18/2016 | PBA13-IDW-2542-WW | 5/18/2016 |

Liquid IDW Discussion

Per Section 8.4 of the Facility-wide SAP, one composite waste sample was collected for Toxicity Characteristic Leaching Procedure (TCLP) parameters and submitted for laboratory analysis to characterize the waste for disposal. Sample PBA13-IDW-2542-WW was collected to characterize one drum of equipment decontamination fluids containing liquinox wash water, 2% HCl, 10% nitric acid, isopropanol, and DI water. Upon receipt of analytical results from the laboratory, the analytical results were validated and reviewed to determine if the waste was potentially hazardous. This review consisted of a comparison of the analytical results against the TCLP criteria presented in Table 8-1, Maximum Concentration of Contaminants for the Toxicity Characteristic (40 *CFR* 261.24), presented in the Facility-Wide SAP (USACE 2011) and Resource Conservation Recovery Act (RCRA) Hazardous Waste regulations 40 *CFR* 261 – 265.

The laboratory analysis for pH was reported at a value of 1.8 for sample PBA13-IDW-2542-WW. On June 23, 2016, Leidos neutralized the liquid (approximately 10 gallons) by adding clean tap water from the project source water tap. A total of 19 gallons were added to the 55 gal drum, for a total of 29 gallons. The final pH of the drum was recorded at 6.0. The field form and photographs are presented in Attachment 1.

Attachment 2 presents the analytical laboratory data for TCLP analysis for IDW water. The results are summarized below:

- 1) All analytical results were below available quantitative limits for the IDW liquid sample;
- 2) The pH for the IDW aqueous waste is considered neutral (2 S. U. < pH < 12 S.U.); and
- 3) The flash point was below detectable limits, >180°F.

Given the observed analytical results, it is recommended that the liquid IDW be classified as non-hazardous, non-contaminated.

Solid IDW Discussion

Per Section 8.4 of the Facility-wide SAP, a composite waste sample (PBA13-IDW-2541-WS) was collected for TCLP parameters and submitted for laboratory analysis to characterize the soil IDW for disposal. Upon receipt of analytical results from the laboratory, the analytical results were validated and reviewed to determine if the waste was potentially hazardous. This review consisted of a comparison of the analytical results against the TCLP criteria presented in Table 7-1, Maximum

Concentration of Contaminants for the Toxicity Characteristic (40 *CFR* 261.24), presented in the Facility-Wide SAP (USACE 2001) and RCRA Hazardous Waste regulations 40 *CFR* 261 – 265.

Attachment 2 presents the analytical laboratory data for TCLP analysis for solid IDW generated during ongoing field activities. The results are summarized below:

- 1) All analytical results were below quantitative limits for the IDW solid sample;
- 2) The pH for the IDW sample was neutral, at 7.5 standard units; and
- 3) The flash point was below detectable limits, >180°F.

Given the observed analytical results, it is recommended that the solid IDW stream be classified as non-hazardous, non-contaminated.

Recommended Disposal Pathways for IDW

Table 2 presents the disposal pathway identified as a result of IDW characterization data. This IDW has been characterized under provisions of the Facility-Wide SAP using TCLP analyses and process knowledge. Leidos recommends that all IDW be disposed as non-hazardous, non-contaminated waste to be removed offsite by a permitted water treatment or waste facility unless the U.S. Army has additional information that would result in the IDW meeting the definition of a listed hazardous waste as defined in 40 *CFR* Part 261 Subpart D.

Table 2. Summary of Final Waste Classification and Recommended Disposal

| NON-HAZARDOUS WASTE | | | |
|----------------------------|---------------|------------------------|---------------------------------------|
| Container Number | Medium | Waste Criterion | Disposal Recommendation |
| Leidos-2016-01 | Solid | Inorganics, organics | Permitted Treatment or Waste Facility |
| Leidos-2016-02 | Liquid | Inorganics, organics | Permitted Treatment or Waste Facility |

Since the former RVAAP, under RCRA, is the generator of this material, Leidos requests concurrence or direction on the waste classification and recommended disposal pathways prior to disposal. Following your concurrence, we will proceed with the appropriate waste disposal.

If you have any questions, or require additional information, please do not hesitate to contact me at (330) 405-5802.

Leidos



Jed Thomas, P.E.
Project Manager

- cc: Mark Leeper, Army National Guard Directorate
Kevin Sedlak, ARNG, Camp Ravenna
Nat Peters, UACE Louisville
Greg Moore, USACE Louisville
Vasu Peterson, Leidos
Heather Adams, Leidos
Pat Ryan, Leidos-REIMS
Gail Harris, Vista Sciences Corporation

ATTACHMENT 1
FIELD FORMS AND PHOTOGRAPHS

TASK TEAM ACTIVITY LOG SHEET

PROJECT NAME:
RVAAAPFW Sewers EE/CA

PROJECT NO:

Date: (mm/dd/yy): 06/23/16

Page 1 of 1

Task Team Members:

Rich Sprinzel

Narrative (include time and location):

- 1350 Rich arrived @ Camp Ravenna East Gate, Pickup B1036 from VISTA (AL Brillinger)
- 1415 Rich arrived @ Main Gate then unlocked B1036. Inspect IDW drums - No issues
- 1430 Calibrate Hanna 991301 pH meter (#028282) pH 7 #5G5637 (exp 7/31/17)
pH 4 # 4AG1032 (exp 7/20/16)
pH 7 6.98 ✓
pH 4 4.04 ✓
- 1445 Test existing pH of Decon wastewater (#Leidos 201602) → 5.75 (stirred/mixed → 5.85),
- Test potable water pH = 7.05; Existing Volume 10 gal (remaining from sampling)
- Add 9 gal potable water (Tinnburg office); Retest pH = 6.00
- Add 5 gal more (24 gal total in drum); Retest pH = 6.00. Inform Heather Adams.
- Check pH meter w/buffers. (7.17/4.21)
- Test IDW w/pH strip → ~6 (matches pH meter)
- 1530 Drums secured, Locked up B1036, Depart Main Gate.

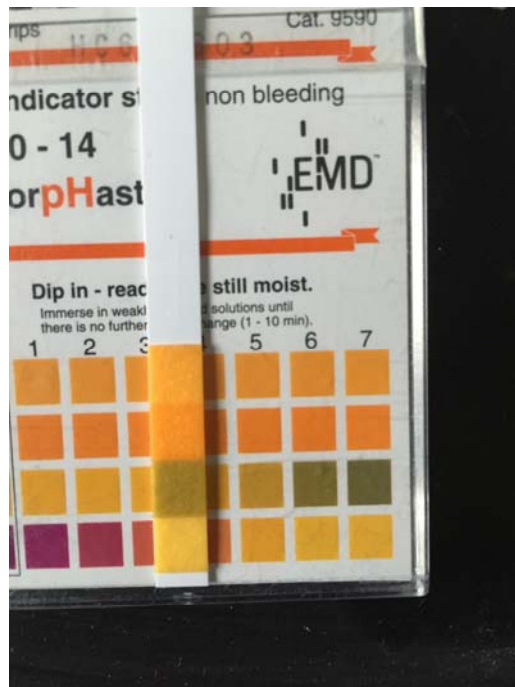
Daily Weather Condition: A.M. NA

P.M. 70s overcast, drizzle

Recorded By: RS
(Signature)

QC Checked by: JL
(Signature)





**ATTACHMENT 2
ANALYTICAL RESULTS FOR IDW**

| Sample Id | | | | PBA13-IDW-2541-WS | PBA13-IDW-2542-WW |
|-----------------------------------|------------|----------|--|-------------------|-------------------|
| Date | | | | 05/18/2016 | 05/18/2016 |
| Analyte | CAS Number | Units | Maximum Concentration for Toxicity Characteristic (mg/L) | | |
| <i>TCLP Metals</i> | | | | | |
| Arsenic | 7440-38-2 | mg/L | 5 | 0.0096 J | 0.0082 J |
| Barium | 7440-39-3 | mg/L | 100 | 0.27 J | 0.28 |
| Cadmium | 7440-43-9 | mg/L | 1 | 0.0038 | 0.03 |
| Chromium | 7440-47-3 | mg/L | 5 | 0.0033 J | 0.044 |
| Lead | 7439-92-1 | mg/L | 5 | 0.27 | 0.67 |
| Mercury | 7439-97-6 | mg/L | 0.2 | <0.00006 U | 0.000036 J |
| Selenium | 7782-49-2 | mg/L | 1 | 0.011 J | 0.0043 J |
| Silver | 7440-22-4 | mg/L | 5 | <0.002 U | <0.002 U |
| <i>TCLP Miscellaneous</i> | | | | | |
| Flashpoint | | Deg. F | >180/>140 | >140 | >140 |
| Cyanide | 57-12-5 | | 0.66 (mg/kg)/0.01 (mg/L) | <20 UJ (mg/kg) | <0.012 UJ (mg/L) |
| Sulfide | 18496-25-8 | | 39.5 (mg/kg)/3.0 (mg/L) | <100 U (mg/kg) | <1 UJ (mg/L) |
| pH | | Std Unit | 2<pH<12.5 | 6.81 | 6.0* |
| <i>TCLP Herbicides</i> | | | | | |
| 2,4,5-TP (Silvex) | 93-72-1 | mg/L | 1 | <0.010 U | <0.010 U |
| 2,4-D | 94-75-7 | mg/L | 10 | <0.001 U | <0.001 U |
| <i>TCLP Pesticides</i> | | | | | |
| Chlordane | 57-74-9 | mg/L | 0.03 | <0.003 U | <0.003 U |
| Endrin | 72-20-8 | mg/L | 0.02 | <0.0001 U | <0.0001 U |
| Heptachlor | 76-44-8 | mg/L | 0.008 | <0.0001 U | <0.0001 U |
| Heptachlor epoxide | 1024-57-3 | mg/L | 0.008 | <0.0001 U | <0.0001 U |
| Methoxychlor | 72-43-5 | mg/L | 10 | <0.0001 U | <0.0001 U |
| Toxaphene | 8001-35-2 | mg/L | 0.5 | <0.003 U | <0.003 U |
| alpha-Chlordane | 5103-71-9 | mg/L | - | <0.0001 U | <0.0001 U |
| gamma-BHC [Lindane] | 58-89-9 | mg/L | 0.4 | <0.0001 U | <0.0001 U |
| gamma-Chlordane | 5103-74-2 | mg/L | - | <0.0001 U | <0.0001 U |
| <i>TCLP Semivolatile Organics</i> | | | | | |
| 1,4-Dichlorobenzene | 106-46-7 | mg/L | 7.5 | <0.004 U | <0.004 U |
| 2,4,5-Trichlorophenol | 95-95-4 | mg/L | 400 | <0.02 U | <0.02 U |
| 2,4,6-Trichlorophenol | 88-06-2 | mg/L | 2 | <0.02 U | <0.02 U |
| 2,4-Dinitrotoluene | 121-14-2 | mg/L | 0.13 | <0.004 U | <0.004 U |
| 2-Methylphenol | 95-48-7 | mg/L | 200 | <0.02 U | <0.02 U |
| 4-Methylphenol | 1319-77-3 | mg/L | 200 | <0.036 U | <0.036 U |
| Hexachlorobenzene | 118-74-1 | mg/L | 0.13 | <0.004 U | <0.004 U |
| Hexachlorobutadiene | 87-68-3 | mg/L | 0.5 | <0.004 U | <0.004 U |
| Hexachloroethane | 67-72-1 | mg/L | 3 | <0.004 U | <0.004 U |
| Nitrobenzene | 98-95-3 | mg/L | 2 | <0.004 U | <0.004 U |
| Pentachlorophenol | 87-86-5 | mg/L | 100 | <0.02 U | <0.02 U |
| Pyridine | 110-86-1 | mg/L | 5 | <0.01 U | <0.01 U |

| Sample Id | | | | PBA13-IDW-2541-WS | PBA13-IDW-2542-WW |
|--|------------|-------|--|-------------------|-------------------|
| Date | | | | 05/18/2016 | 05/18/2016 |
| Analyte | CAS Number | Units | Maximum Concentration for Toxicity Characteristic (mg/L) | | |
| TCLP Volatile Organics | | | | | |
| 1,1-Dichloroethene | 75-35-4 | mg/L | 0.7 | <0.05 U | <0.05 U |
| 1,2-Dichloroethane | 107-06-2 | mg/L | 0.5 | <0.05 U | <0.05 U |
| 2-Butanone | 78-93-3 | mg/L | 200 | <0.5 U | <0.5 U |
| Benzene | 71-43-2 | mg/L | 0.5 | <0.05 U | <0.05 U |
| Carbon tetrachloride | 56-23-5 | mg/L | 0.5 | <0.05 U | <0.05 U |
| Chlorobenzene | 108-90-7 | mg/L | 100 | <0.05 U | <0.05 U |
| Chloroform | 67-66-3 | mg/L | 6 | <0.025 U | <0.025 U |
| Tetrachloroethene | 127-18-4 | mg/L | 0.7 | <0.05 U | <0.05 U |
| Trichloroethene | 79-01-6 | mg/L | 0.5 | <0.05 U | <0.05 U |
| Vinyl chloride | 75-01-4 | mg/L | 0.2 | <0.05 U | <0.05 U |
| PCBs | | | | <i>mg/kg</i> | <i>mg/L</i> |
| Aroclor 1016 | 12674-11-2 | | - | <0.036 U | <0.00031 U |
| Aroclor 1221 | 11104-28-2 | | - | <0.036 U | <0.00031 U |
| Aroclor 1232 | 11141-16-5 | | - | <0.036 U | <0.00031 U |
| Aroclor 1242 | 53469-21-9 | | - | <0.036 U | <0.00031 U |
| Aroclor 1248 | 12672-29-6 | | - | <0.036 U | <0.00031 U |
| Aroclor 1254 | 11097-69-1 | | - | 0.202** | <0.00031 U |
| Aroclor 1260 | 11096-82-5 | | - | 0.0644 | <0.00031 U |
| Aroclor 1262 | 37324-23-5 | | - | <0.036 U | <0.00031 U |
| Aroclor 1268 | 11100-14-4 | | - | <0.036 U | <0.00031 U |
| Explosives | | | <i>mg/L</i> | <i>mg/kg</i> | <i>mg/L</i> |
| 1,3,5-Trinitrobenzene [1,3,5-TNB] | 99-35-4 | | - | <0.3 UJ | <0.00008 U |
| 1,3-Dinitrobenzene [1,3-DNB] | 99-65-0 | | - | <0.2 U | <0.00008 U |
| 2,4,6-Trinitrotoluene | 118-96-7 | | - | <0.2 U | <0.00016 U |
| 2,4-Dinitrotoluene | 121-14-2 | | 0.13 | <0.2 U | <0.00004 U |
| 2,6-Dinitrotoluene | 606-20-2 | | - | <0.2 U | <0.00004 U |
| 2-Amino-4,6-dinitrotoluene | 35572-78-2 | | - | <0.2 U | <0.00008 U |
| 2-Nitrotoluene | 88-72-2 | | - | <0.2 U | 0.0039 |
| 3,5-Dinitroaniline | 618-87-1 | | - | <0.2 U | <0.00008 U |
| 3-Nitrotoluene | 99-08-1 | | - | <0.3 U | 0.00096 |
| 4-Amino-2,6-dinitrotoluene | 19406-51-0 | | - | <0.2 U | <0.00008 U |
| 4-Nitrotoluene | 99-99-0 | | - | <0.2 U | <0.00008 U |
| Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX) | 121-82-4 | | - | <0.3 U | <0.00008 U |
| Nitrobenzene | 98-95-3 | | 2 | <0.2 U | <0.00008 U |
| Nitroglycerin | 55-63-0 | | - | <1.2 U | <0.00032 U |
| Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX) | 2691-41-0 | | - | <0.3 U | <0.00008 U |

| Sample Id | | | | PBA13-IDW-2541-WS | PBA13-IDW-2542-WW |
|-----------|------------|-------|--|-------------------|-------------------|
| Date | | | | 05/18/2016 | 05/18/2016 |
| Analyte | CAS Number | Units | Maximum Concentration for Toxicity Characteristic (mg/L) | | |
| PETN | 78-11-5 | | - | <1.2 U | <0.00032 U |
| Tetryl | 479-45-8 | | - | <0.2 U | <0.00016 U |

Notes:

*initial pH was 1.8. Added 14 gallons of clean water on 6/23/2016 which raised the pH to 6.

**below 50 ppm, therefore not required to managed under TSCA 40 CFR 761.

J = Estimated Concentration, less than the reporting limit – Lab Qualifier

U = Non-detect, concentration reported is reporting limit – Lab Qualifier

UJ = Non-detect, reporting limit estimated – Lab Qualifier

- = No Standard Exists

**WASTE CHARACTERIZATION
SAMPLING ANALYTICAL SUMMARY
REPORT**

REVISED
ANALYTICAL SUMMARY REPORT

This report at a minimum contains the following information:

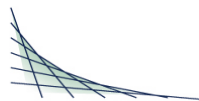
Analytical Report of Test Results
Description of QC Qualifiers
Chain of Custody (copy)
Quality Control Summary (if applicable)
Case Narrative (if applicable)
Correspondence with Client (if applicable)

Revision Date 06/08/2016

Reason for Revision

Reported absent reactive sulfide data.

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for parameters where accreditation is required or available, unless otherwise noted in the case narrative.



REVISED

ANALYTICAL SAMPLE DATA

LEIDOS
 MARIE SIMPSON
 301 LABORATORY ROAD
 OAKRIDGE, TN 37831

Project Name: FW SEWERS EE/CA (LL2)
 Project Phase:
 Project #:
 Folder #: 119145
 Purchase Order #: P010183168
 Contract #: 2941

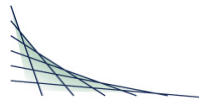
Arrival Temperature: 1.8
 Report Date: 06/06/2016
 Date Received: 05/19/2016
 Reprint Date: 06/08/2016

| | | | |
|-----------------|---------------------------------------|------------------|--------------------------|
| CT LAB#: 725918 | Sample Description: PBA13-IDW-2541-WS | Client Sample #: | Sampled: 05/18/2016 1225 |
|-----------------|---------------------------------------|------------------|--------------------------|

| Analyte | Result | Units | DL | DOD LOD | DOD LOQ | RL | DF | Qualifier | Prep Date/Time | Analysis Date/Time | Analyst | Method |
|--------------------------|------------------|--------|-----|------------|------------|-----|------|-----------|-------------------|-----------------------|---------|--------------|
| Inorganic Results | | | | | | | | | | | | |
| Solids, Percent | 55.5 | % | 0.1 | 0.1 | 0.1 | 0.1 | 1.00 | Y | | 5/20/16 15:00 | AMA | EPA 8000C |
| pH | 6.81 | S.U. | | | | | 1.00 | | | 5/24/16 12:50 | MER | EPA 9045D ^ |
| Flashpoint | >140.0 | Deg. F | | | | | 1.00 | | | 5/20/16 12:00 | LJS | EPA 1010A ^ |
| Cyanide, Reactive | <20 | mg/kg | 20 | 20 | 20 | 20 | 1.00 | U M | | 5/24/16 14:00 | SAW | ASTM D5049 ^ |
| Sulfide Reactive | <100 | mg/kg | 100 | 100 | 100 | 100 | 1.00 | U | | 5/24/16 14:00 | SAW | ASTM D4978 ^ |
| Organic Results | | | | | | | | | | | | |
| Aroclor-1016 | <36 | ug/kg | 8.9 | 36 | 54 | 54 | 1.00 | U | 05/23/2016 13:30 | 5/24/16 00:46 | JJY | EPA 8082A |
| Aroclor-1221 | <36 | ug/kg | 13 | 36 | 54 | 54 | 1.00 | U | 05/23/2016 13:30 | 5/24/16 00:46 | JJY | EPA 8082A |
| Aroclor-1232 | <36 | ug/kg | 16 | 36 | 54 | 54 | 1.00 | U | 05/23/2016 13:30 | 5/24/16 00:46 | JJY | EPA 8082A |
| Aroclor-1242 | <36 | ug/kg | 13 | 36 | 54 | 54 | 1.00 | U | 05/23/2016 13:30 | 5/24/16 00:46 | JJY | EPA 8082A |
| Aroclor-1248 | <36 | ug/kg | 13 | 36 | 54 | 54 | 1.00 | U | 05/23/2016 13:30 | 5/24/16 00:46 | JJY | EPA 8082A |
| Aroclor-1254 | 202 | ug/kg | 16 | 36 | 54 | 54 | 1.00 | | 05/23/2016 13:30 | 5/24/16 12:42 | JJY | EPA 8082A |
| Aroclor-1260 | 64.4 | ug/kg | 11 | 36 | 54 | 54 | 1.00 | | 05/23/2016 13:30 | 5/24/16 00:46 | JJY | EPA 8082A |
| Aroclor-1262 | <36 | ug/kg | 13 | 36 | 54 | 54 | 1.00 | U | 05/23/2016 13:30 | 5/24/16 00:46 | JJY | EPA 8082A |
| Aroclor-1268 | <36 | ug/kg | 8.9 | 36 | 54 | 54 | 1.00 | U | 05/23/2016 13:30 | 5/24/16 00:46 | JJY | EPA 8082A |

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis





| | | | |
|-----------------|---------------------------------------|------------------|--------------------------|
| CT LAB#: 725918 | Sample Description: PBA13-IDW-2541-WS | Client Sample #: | Sampled: 05/18/2016 1225 |
|-----------------|---------------------------------------|------------------|--------------------------|

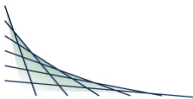
| Analyte | Result | Units | DL | DOD LOD | DOD LOQ | RL | DF | Qualifier | Prep Date/Time | Analysis Date/Time | Analyst | Method |
|----------------------------|--------|------------|-------|------------|------------|------|------|-----------|-------------------|-----------------------|---------|-----------|
| Surr: 2,4,5,6-TCMX | 112 | % Recovery | 44 | | | 130 | 1.00 | | 05/23/2016 13:30 | 5/24/16 00:46 | JJY | EPA 8082A |
| Surr: DCBP | 102 | % Recovery | 54 | | | 141 | 1.00 | | 05/23/2016 13:30 | 5/24/16 00:46 | JJY | EPA 8082A |
| 1,3,5-Trinitrobenzene | <0.30 | mg/kg | 0.13 | 0.30 | 0.50 | 0.50 | 1.00 | U M | 05/26/2016 11:30 | 6/2/16 13:55 | RED | EPA 8330B |
| 1,3-Dinitrobenzene | <0.20 | mg/kg | 0.080 | 0.20 | 0.30 | 0.30 | 1.00 | U | 05/26/2016 11:30 | 6/2/16 13:55 | RED | EPA 8330B |
| 2,4,6-Trinitrotoluene | <0.20 | mg/kg | 0.090 | 0.20 | 0.50 | 0.50 | 1.00 | U | 05/26/2016 11:30 | 6/2/16 13:55 | RED | EPA 8330B |
| 2,4-Dinitrotoluene | <0.20 | mg/kg | 0.080 | 0.20 | 0.30 | 0.30 | 1.00 | U | 05/26/2016 11:30 | 6/2/16 13:55 | RED | EPA 8330B |
| 2,6-Dinitrotoluene | <0.20 | mg/kg | 0.070 | 0.20 | 0.30 | 0.30 | 1.00 | U | 05/26/2016 11:30 | 6/2/16 13:55 | RED | EPA 8330B |
| 2-Amino-4,6-dinitrotoluene | <0.20 | mg/kg | 0.090 | 0.20 | 0.30 | 0.30 | 1.00 | U | 05/26/2016 11:30 | 6/2/16 13:55 | RED | EPA 8330B |
| 2-Nitrotoluene | <0.20 | mg/kg | 0.090 | 0.20 | 0.30 | 0.30 | 1.00 | U | 05/26/2016 11:30 | 6/2/16 13:55 | RED | EPA 8330B |
| 3,5-Dinitroaniline | <0.20 | mg/kg | 0.090 | 0.20 | 0.60 | 0.60 | 1.00 | U | 05/26/2016 11:30 | 6/2/16 13:55 | RED | EPA 8330B |
| 3-Nitrotoluene | <0.30 | mg/kg | 0.11 | 0.30 | 0.50 | 0.50 | 1.00 | U | 05/26/2016 11:30 | 6/2/16 13:55 | RED | EPA 8330B |
| 4-Amino-2,6-dinitrotoluene | <0.20 | mg/kg | 0.080 | 0.20 | 0.30 | 0.30 | 1.00 | U | 05/26/2016 11:30 | 6/2/16 13:55 | RED | EPA 8330B |
| 4-Nitrotoluene | <0.20 | mg/kg | 0.10 | 0.20 | 0.50 | 0.50 | 1.00 | U | 05/26/2016 11:30 | 6/2/16 13:55 | RED | EPA 8330B |
| HMX | <0.30 | mg/kg | 0.12 | 0.30 | 0.50 | 0.50 | 1.00 | U | 05/26/2016 11:30 | 6/2/16 13:55 | RED | EPA 8330B |
| Nitrobenzene | <0.20 | mg/kg | 0.10 | 0.20 | 0.50 | 0.50 | 1.00 | U | 05/26/2016 11:30 | 6/2/16 13:55 | RED | EPA 8330B |
| Nitroglycerin | <1.2 | mg/kg | 0.50 | 1.2 | 2.0 | 2.0 | 1.00 | U | 05/26/2016 11:30 | 6/2/16 13:55 | RED | EPA 8330B |
| PETN | <1.2 | mg/kg | 0.60 | 1.2 | 2.0 | 2.0 | 1.00 | U | 05/26/2016 11:30 | 6/2/16 13:55 | RED | EPA 8330B |
| RDX | <0.30 | mg/kg | 0.14 | 0.30 | 0.50 | 0.50 | 1.00 | U | 05/26/2016 11:30 | 6/2/16 13:55 | RED | EPA 8330B |
| Tetryl | <0.20 | mg/kg | 0.090 | 0.20 | 0.50 | 0.50 | 1.00 | U | 05/26/2016 11:30 | 6/2/16 13:55 | RED | EPA 8330B |
| 1,2-Dinitrobenzene | 103 | % Recovery | 78 | | | 119 | 1.00 | | 05/26/2016 11:30 | 6/2/16 13:55 | RED | EPA 8330B |

| | | | |
|-----------------|---------------------------------------|------------------|--------------------------|
| CT LAB#: 725919 | Sample Description: PBA13-IDW-2541-WS | Client Sample #: | Sampled: 05/18/2016 1225 |
|-----------------|---------------------------------------|------------------|--------------------------|

| Analyte | Result | Units | DL | DOD LOD | DOD LOQ | RL | DF | Qualifier | Prep Date/Time | Analysis Date/Time | Analyst | Method |
|-----------------------|---------------|-------|--------|------------|------------|-------|------|-----------|-------------------|-----------------------|---------|-----------|
| Metals Results | | | | | | | | | | | | |
| TCLP Arsenic | 0.0096 | mg/L | 0.0040 | 0.012 | 0.024 | 0.024 | 1.00 | J | 05/25/2016 07:00 | 5/27/16 18:06 | NAH | EPA 6010C |

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis





| | | | |
|-----------------|---------------------------------------|------------------|--------------------------|
| CT LAB#: 725919 | Sample Description: PBA13-IDW-2541-WS | Client Sample #: | Sampled: 05/18/2016 1225 |
|-----------------|---------------------------------------|------------------|--------------------------|

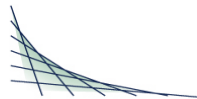
| Analyte | Result | Units | DL | DOD LOD | DOD LOQ | RL | DF | Qualifier | Prep Date/Time | Analysis Date/Time | Analyst | Method |
|---------------|-----------|-------|----------|------------|------------|---------|------|-----------|-------------------|-----------------------|---------|-----------|
| TCLP Barium | 0.27 | mg/L | 0.00029 | 0.00090 | 0.0018 | 0.0018 | 1.00 | M | 05/25/2016 07:00 | 5/27/16 18:06 | NAH | EPA 6010C |
| TCLP Cadmium | 0.0038 | mg/L | 0.00030 | 0.0010 | 0.0020 | 0.0020 | 1.00 | M | 05/25/2016 07:00 | 5/27/16 18:06 | NAH | EPA 6010C |
| TCLP Chromium | 0.0033 | mg/L | 0.00060 | 0.0020 | 0.0040 | 0.0040 | 1.00 | J M | 05/25/2016 07:00 | 5/27/16 18:06 | NAH | EPA 6010C |
| TCLP Lead | 0.27 | mg/L | 0.0014 | 0.0020 | 0.0040 | 0.0040 | 1.00 | | 05/25/2016 07:00 | 5/27/16 18:06 | NAH | EPA 6010C |
| TCLP Selenium | 0.011 | mg/L | 0.0022 | 0.0065 | 0.013 | 0.013 | 1.00 | J | 05/25/2016 07:00 | 5/27/16 18:06 | NAH | EPA 6010C |
| TCLP Silver | <0.0020 | mg/L | 0.00070 | 0.0020 | 0.0040 | 0.0040 | 1.00 | U | 05/25/2016 07:00 | 5/27/16 18:06 | NAH | EPA 6010C |
| TCLP Mercury | <0.000060 | mg/L | 0.000030 | 0.000060 | 0.00012 | 0.00012 | 1.00 | U | 05/25/2016 07:00 | 5/31/16 08:23 | LJF | EPA 7470A |

Organic Results

| | | | | | | | | | | | | | |
|-----------------------------------|----------|------------|----------|---------|---------|---------|--------|---|------------------|---------------|-----|-----------|---|
| TCLP alpha-Chlordane | <0.00010 | mg/L | 0.000090 | 0.00010 | 0.00040 | 0.00040 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 16:47 | JJY | EPA 8081B | ^ |
| TCLP Chlordane (Technical) | <0.0030 | mg/L | 0.0010 | 0.0030 | 0.0060 | 0.0060 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 16:47 | JJY | EPA 8081B | ^ |
| TCLP Endrin | <0.00010 | mg/L | 0.000060 | 0.00010 | 0.00024 | 0.00024 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 16:47 | JJY | EPA 8081B | ^ |
| TCLP gamma-Chlordane | <0.00010 | mg/L | 0.000070 | 0.00010 | 0.00024 | 0.00024 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 16:47 | JJY | EPA 8081B | ^ |
| TCLP Heptachlor | <0.00010 | mg/L | 0.000060 | 0.00010 | 0.00024 | 0.00024 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 16:47 | JJY | EPA 8081B | ^ |
| TCLP Heptachlor epoxide | <0.00010 | mg/L | 0.000070 | 0.00010 | 0.00024 | 0.00024 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 16:47 | JJY | EPA 8081B | ^ |
| TCLP Lindane | <0.00010 | mg/L | 0.000070 | 0.00010 | 0.00024 | 0.00024 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 16:47 | JJY | EPA 8081B | ^ |
| TCLP Methoxychlor | <0.00010 | mg/L | 0.000060 | 0.00010 | 0.00040 | 0.00040 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 16:47 | JJY | EPA 8081B | ^ |
| TCLP Toxaphene | <0.0030 | mg/L | 0.0018 | 0.0030 | 0.0060 | 0.0056 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 16:47 | JJY | EPA 8081B | ^ |
| TCLP SURR:2,4,5,6-CL4-m-xylene | 94 | % Recovery | 25 | | | 140 | 1.00 | | 05/25/2016 07:00 | 5/26/16 16:47 | JJY | EPA 8081B | |
| TCLP SURR:Decachlorobiphenyl | 106 | % Recovery | 30 | | | 135 | 1.00 | | 05/25/2016 07:00 | 5/26/16 16:47 | JJY | EPA 8081B | |
| TCLP 1,1-Dichloroethene | <0.050 | mg/L | 0.024 | 0.050 | 0.10 | 0.10 | 100.00 | U | 05/24/2016 14:00 | 5/26/16 11:05 | RLD | EPA 8260C | |
| TCLP 1,2-Dichloroethane | <0.050 | mg/L | 0.030 | 0.050 | 0.10 | 0.10 | 100.00 | U | 05/24/2016 14:00 | 5/26/16 11:05 | RLD | EPA 8260C | |
| TCLP 2-Butanone | <0.50 | mg/L | 0.24 | 0.50 | 1.0 | 1.0 | 100.00 | U | 05/24/2016 14:00 | 5/26/16 11:05 | RLD | EPA 8260C | |
| TCLP Benzene | <0.050 | mg/L | 0.019 | 0.050 | 0.10 | 0.10 | 100.00 | U | 05/24/2016 14:00 | 5/26/16 11:05 | RLD | EPA 8260C | |
| TCLP Carbon tetrachloride | <0.050 | mg/L | 0.023 | 0.050 | 0.10 | 0.10 | 100.00 | U | 05/24/2016 14:00 | 5/26/16 11:05 | RLD | EPA 8260C | |
| TCLP Chlorobenzene | <0.050 | mg/L | 0.024 | 0.050 | 0.10 | 0.10 | 100.00 | U | 05/24/2016 14:00 | 5/26/16 11:05 | RLD | EPA 8260C | |
| TCLP Chloroform | <0.025 | mg/L | 0.015 | 0.025 | 0.050 | 0.050 | 100.00 | U | 05/24/2016 14:00 | 5/26/16 11:05 | RLD | EPA 8260C | |

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis





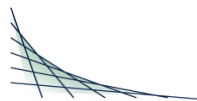
| | | | |
|-----------------|---------------------------------------|------------------|--------------------------|
| CT LAB#: 725919 | Sample Description: PBA13-IDW-2541-WS | Client Sample #: | Sampled: 05/18/2016 1225 |
|-----------------|---------------------------------------|------------------|--------------------------|

| Analyte | Result | Units | DL | DOD LOD | DOD LOQ | RL | DF | Qualifier | Prep Date/Time | Analysis Date/Time | Analyst | Method |
|------------------------------------|---------|------------|--------|------------|------------|-------|--------|-----------|-------------------|-----------------------|---------|-----------|
| TCLP Tetrachloroethene | <0.050 | mg/L | 0.030 | 0.050 | 0.10 | 0.10 | 100.00 | U | 05/24/2016 14:00 | 5/26/16 11:05 | RLD | EPA 8260C |
| TCLP Trichloroethene | <0.050 | mg/L | 0.021 | 0.050 | 0.10 | 0.10 | 100.00 | U | 05/24/2016 14:00 | 5/26/16 11:05 | RLD | EPA 8260C |
| TCLP Vinyl chloride | <0.050 | mg/L | 0.018 | 0.050 | 0.10 | 0.10 | 100.00 | U | 05/24/2016 14:00 | 5/26/16 11:05 | RLD | EPA 8260C |
| TCLP 1,2 Dichloroethane-d4 | 98 | % Recovery | 81 | | | 118 | 1.00 | | 05/24/2016 14:00 | 5/26/16 11:05 | RLD | EPA 8260C |
| TCLP Bromofluorobenzene | 98 | % Recovery | 85 | | | 114 | 1.00 | | 05/24/2016 14:00 | 5/26/16 11:05 | RLD | EPA 8260C |
| TCLP d8-Toluene | 101 | % Recovery | 89 | | | 112 | 1.00 | | 05/24/2016 14:00 | 5/26/16 11:05 | RLD | EPA 8260C |
| TCLP Dibromofluoromethane | 100 | % Recovery | 80 | | | 119 | 1.00 | | 05/24/2016 14:00 | 5/26/16 11:05 | RLD | EPA 8260C |
| TCLP 1,4-Dichlorobenzene | <0.0040 | mg/L | 0.0019 | 0.0040 | 0.010 | 0.010 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 14:51 | RPN | EPA 8270D |
| TCLP 2,4,5-Trichlorophenol | <0.020 | mg/L | 0.011 | 0.020 | 0.050 | 0.050 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 14:51 | RPN | EPA 8270D |
| TCLP 2,4,6-Trichlorophenol | <0.020 | mg/L | 0.010 | 0.020 | 0.050 | 0.050 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 14:51 | RPN | EPA 8270D |
| TCLP 2,4-Dinitrotoluene | <0.0040 | mg/L | 0.0021 | 0.0040 | 0.010 | 0.010 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 14:51 | RPN | EPA 8270D |
| TCLP 2-Methylphenol | <0.020 | mg/L | 0.0086 | 0.020 | 0.050 | 0.050 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 14:51 | RPN | EPA 8270D |
| TCLP 3 & 4-Methylphenol | <0.036 | mg/L | 0.014 | 0.036 | 0.090 | 0.090 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 14:51 | RPN | EPA 8270D |
| TCLP Hexachlorobenzene | <0.0040 | mg/L | 0.0027 | 0.0040 | 0.010 | 0.010 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 14:51 | RPN | EPA 8270D |
| TCLP Hexachlorobutadiene | <0.0040 | mg/L | 0.0018 | 0.0040 | 0.010 | 0.010 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 14:51 | RPN | EPA 8270D |
| TCLP Hexachloroethane | <0.0040 | mg/L | 0.0022 | 0.0040 | 0.010 | 0.010 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 14:51 | RPN | EPA 8270D |
| TCLP Nitrobenzene | <0.0040 | mg/L | 0.0016 | 0.0040 | 0.010 | 0.010 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 14:51 | RPN | EPA 8270D |
| TCLP Pentachlorophenol | <0.020 | mg/L | 0.011 | 0.020 | 0.050 | 0.050 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 14:51 | RPN | EPA 8270D |
| TCLP Pyridine | <0.010 | mg/L | 0.0062 | 0.010 | 0.030 | 0.040 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 14:51 | RPN | EPA 8270D |
| TCLP Surr: 2,4,6-Tribromophenol | 77 | % Recovery | 43 | | | 140 | 1.00 | | 05/25/2016 07:00 | 5/26/16 14:51 | RPN | EPA 8270D |
| TCLP Surr: 2-Fluorobiphenyl | 69 | % Recovery | 44 | | | 119 | 1.00 | | 05/25/2016 07:00 | 5/26/16 14:51 | RPN | EPA 8270D |
| TCLP Surr: 2-Fluorophenol | 39 | % Recovery | 19 | | | 119 | 1.00 | | 05/25/2016 07:00 | 5/26/16 14:51 | RPN | EPA 8270D |
| TCLP Surr: Nitrobenzene-d5 | 67 | % Recovery | 44 | | | 120 | 1.00 | | 05/25/2016 07:00 | 5/26/16 14:51 | RPN | EPA 8270D |
| TCLP Surr: Phenol-d5 | 29 | % Recovery | 1 | | | 114 | 1.00 | | 05/25/2016 07:00 | 5/26/16 14:51 | RPN | EPA 8270D |
| TCLP Surr: Terphenyl-d14 | 86 | % Recovery | 50 | | | 134 | 1.00 | | 05/25/2016 07:00 | 5/26/16 14:51 | RPN | EPA 8270D |

Sub Lab Results

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis





| | | | |
|-----------------|---------------------------------------|------------------|--------------------------|
| CT LAB#: 725919 | Sample Description: PBA13-IDW-2541-WS | Client Sample #: | Sampled: 05/18/2016 1225 |
|-----------------|---------------------------------------|------------------|--------------------------|

| Analyte | Result | Units | DL | DOD LOD | DOD LOQ | RL | DF | Qualifier | Prep Date/Time | Analysis Date/Time | Analyst | Method |
|-----------------|-----------------|-------|----|------------|------------|----|------|-----------|-------------------|-----------------------|---------|--------|
| TCLP Herbicides | attached | | | | | | 1.00 | | 05/25/2016 07:00 | 6/6/16 00:00 | SUB | SW8151 |

| | | | |
|-----------------|---------------------------------------|------------------|--------------------------|
| CT LAB#: 725920 | Sample Description: PBA13-IDW-2542-WW | Client Sample #: | Sampled: 05/18/2016 1340 |
|-----------------|---------------------------------------|------------------|--------------------------|

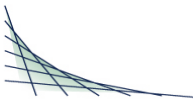
| Analyte | Result | Units | DL | DOD LOD | DOD LOQ | RL | DF | Qualifier | Prep Date/Time | Analysis Date/Time | Analyst | Method |
|---------|--------|-------|----|------------|------------|----|----|-----------|-------------------|-----------------------|---------|--------|
|---------|--------|-------|----|------------|------------|----|----|-----------|-------------------|-----------------------|---------|--------|

Inorganic Results

| | | | | | | | | | | | | | |
|------------|------------------|--------|-----|-----|-----|-----|------|-----|------------------|---------------|-----|-----------|---|
| pH | 1.98 | S.U. | | | | | 1.00 | X | | 5/24/16 12:50 | MER | EPA 9040C | ^ |
| Flashpoint | >140.0 | Deg. F | | | | | 1.00 | | | 5/20/16 12:00 | LJS | EPA 1010 | ^ |
| Cyanide | <12 | ug/L | 5.0 | 12 | 24 | 24 | 1.00 | U M | 05/25/2016 10:45 | 5/25/16 15:26 | MER | EPA 9012A | ^ |
| Sulfide | <1.0 | mg/L | 1.0 | 1.0 | 1.0 | 1.0 | 1.00 | U M | | 5/24/16 15:00 | SAW | EPA 9034 | ^ |

Organic Results

| | | | | | | | | | | | | |
|-----------------------|--------|------------|-------|-------|------|------|------|---|------------------|---------------|-----|-----------|
| Aroclor-1016 | <0.31 | ug/L | 0.12 | 0.31 | 1.0 | 1.0 | 1.00 | U | 05/25/2016 09:00 | 5/26/16 17:24 | JJY | EPA 8082A |
| Aroclor-1221 | <0.31 | ug/L | 0.088 | 0.31 | 1.0 | 1.0 | 1.00 | U | 05/25/2016 09:00 | 5/26/16 17:24 | JJY | EPA 8082A |
| Aroclor-1232 | <0.31 | ug/L | 0.15 | 0.31 | 1.0 | 1.0 | 1.00 | U | 05/25/2016 09:00 | 5/26/16 17:24 | JJY | EPA 8082A |
| Aroclor-1242 | <0.31 | ug/L | 0.099 | 0.31 | 1.0 | 1.0 | 1.00 | U | 05/25/2016 09:00 | 5/26/16 17:24 | JJY | EPA 8082A |
| Aroclor-1248 | <0.31 | ug/L | 0.091 | 0.31 | 1.0 | 1.0 | 1.00 | U | 05/25/2016 09:00 | 5/26/16 17:24 | JJY | EPA 8082A |
| Aroclor-1254 | <0.31 | ug/L | 0.097 | 0.31 | 1.0 | 1.0 | 1.00 | U | 05/25/2016 09:00 | 5/26/16 17:24 | JJY | EPA 8082A |
| Aroclor-1260 | <0.31 | ug/L | 0.10 | 0.31 | 1.0 | 1.0 | 1.00 | U | 05/25/2016 09:00 | 5/26/16 17:24 | JJY | EPA 8082A |
| Aroclor-1262 | <0.31 | ug/L | 0.29 | 0.31 | 1.0 | 1.0 | 1.00 | U | 05/25/2016 09:00 | 5/26/16 17:24 | JJY | EPA 8082A |
| Aroclor-1268 | <0.31 | ug/L | 0.058 | 0.31 | 1.0 | 1.0 | 1.00 | U | 05/25/2016 09:00 | 5/26/16 17:24 | JJY | EPA 8082A |
| Surr: 2,4,5,6-TCMX | 100 | % Recovery | 38 | | | 137 | 1.00 | | 05/25/2016 09:00 | 5/26/16 17:24 | JJY | EPA 8082A |
| Surr: DCBP | 82 | % Recovery | 23 | | | 147 | 1.00 | | 05/25/2016 09:00 | 5/26/16 17:24 | JJY | EPA 8082A |
| 1,3,5-Trinitrobenzene | <0.080 | ug/L | 0.038 | 0.080 | 0.16 | 0.16 | 1.00 | U | 05/23/2016 08:00 | 6/1/16 16:00 | RED | EPA 8330B |
| 1,3-Dinitrobenzene | <0.080 | ug/L | 0.030 | 0.080 | 0.16 | 0.16 | 1.00 | U | 05/23/2016 08:00 | 6/1/16 16:00 | RED | EPA 8330B |
| 2,4,6-Trinitrotoluene | <0.16 | ug/L | 0.052 | 0.16 | 0.32 | 0.32 | 1.00 | U | 05/23/2016 08:00 | 6/1/16 16:00 | RED | EPA 8330B |



| | | | |
|-----------------|---------------------------------------|------------------|--------------------------|
| CT LAB#: 725920 | Sample Description: PBA13-IDW-2542-WW | Client Sample #: | Sampled: 05/18/2016 1340 |
|-----------------|---------------------------------------|------------------|--------------------------|

| Analyte | Result | Units | DL | DOD LOD | DOD LOQ | RL | DF | Qualifier | Prep Date/Time | Analysis Date/Time | Analyst | Method |
|----------------------------|-------------|------------|-------|------------|------------|-------|------|-----------|-------------------|-----------------------|---------|-----------|
| 2,4-Dinitrotoluene | <0.040 | ug/L | 0.022 | 0.040 | 0.080 | 0.080 | 1.00 | U | 05/23/2016 08:00 | 6/1/16 16:00 | RED | EPA 8330B |
| 2,6-Dinitrotoluene | <0.040 | ug/L | 0.022 | 0.040 | 0.080 | 0.080 | 1.00 | U | 05/23/2016 08:00 | 6/1/16 16:00 | RED | EPA 8330B |
| 2-Amino-4,6-dinitrotoluene | <0.080 | ug/L | 0.028 | 0.080 | 0.16 | 0.16 | 1.00 | U | 05/23/2016 08:00 | 6/1/16 16:00 | RED | EPA 8330B |
| 2-Nitrotoluene | 3.9 | ug/L | 0.050 | 0.16 | 0.32 | 0.32 | 1.00 | P | 05/23/2016 08:00 | 6/1/16 16:00 | RED | EPA 8330B |
| 3,5-Dinitroaniline | <0.080 | ug/L | 0.034 | 0.080 | 0.16 | 0.16 | 1.00 | U | 05/23/2016 08:00 | 6/1/16 16:00 | RED | EPA 8330B |
| 3-Nitrotoluene | 0.96 | ug/L | 0.025 | 0.040 | 0.080 | 0.080 | 1.00 | | 05/23/2016 08:00 | 6/1/16 16:00 | RED | EPA 8330B |
| 4-Amino-2,6-dinitrotoluene | <0.080 | ug/L | 0.032 | 0.080 | 0.16 | 0.16 | 1.00 | U | 05/23/2016 08:00 | 6/1/16 16:00 | RED | EPA 8330B |
| 4-Nitrotoluene | <0.080 | ug/L | 0.042 | 0.080 | 0.16 | 0.16 | 1.00 | U | 05/23/2016 08:00 | 6/1/16 16:00 | RED | EPA 8330B |
| HMX | <0.080 | ug/L | 0.040 | 0.080 | 0.16 | 0.16 | 1.00 | U | 05/23/2016 08:00 | 6/1/16 16:00 | RED | EPA 8330B |
| Nitrobenzene | <0.080 | ug/L | 0.038 | 0.080 | 0.16 | 0.16 | 1.00 | U | 05/23/2016 08:00 | 6/1/16 16:00 | RED | EPA 8330B |
| Nitroglycerin | <0.32 | ug/L | 0.10 | 0.32 | 0.64 | 0.64 | 1.00 | U | 05/23/2016 08:00 | 6/1/16 16:00 | RED | EPA 8330B |
| PETN | <0.32 | ug/L | 0.14 | 0.32 | 0.64 | 0.64 | 1.00 | U | 05/23/2016 08:00 | 6/1/16 16:00 | RED | EPA 8330B |
| RDX | <0.080 | ug/L | 0.034 | 0.080 | 0.16 | 0.16 | 1.00 | U | 05/23/2016 08:00 | 6/1/16 16:00 | RED | EPA 8330B |
| Tetryl | <0.16 | ug/L | 0.050 | 0.16 | 0.32 | 0.32 | 1.00 | U | 05/23/2016 08:00 | 6/1/16 16:00 | RED | EPA 8330B |
| 1,2-Dinitrobenzene | 85 | % Recovery | 83 | | | 119 | 1.00 | P | 05/23/2016 08:00 | 6/1/16 16:00 | RED | EPA 8330B |

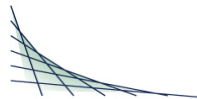
| | | | |
|-----------------|---------------------------------------|------------------|--------------------------|
| CT LAB#: 725921 | Sample Description: PBA13-IDW-2542-WW | Client Sample #: | Sampled: 05/18/2016 1340 |
|-----------------|---------------------------------------|------------------|--------------------------|

| Analyte | Result | Units | DL | DOD LOD | DOD LOQ | RL | DF | Qualifier | Prep Date/Time | Analysis Date/Time | Analyst | Method |
|-----------------------|---------------|-------|---------|------------|------------|--------|------|-----------|-------------------|-----------------------|---------|-----------|
| Metals Results | | | | | | | | | | | | |
| TCLP Arsenic | 0.0082 | mg/L | 0.0040 | 0.012 | 0.024 | 0.024 | 1.00 | J | 05/25/2016 07:00 | 5/27/16 18:48 | NAH | EPA 6010C |
| TCLP Barium | 0.28 | mg/L | 0.00029 | 0.00090 | 0.0018 | 0.0018 | 1.00 | | 05/25/2016 07:00 | 5/27/16 18:48 | NAH | EPA 6010C |
| TCLP Cadmium | 0.030 | mg/L | 0.00030 | 0.0010 | 0.0020 | 0.0020 | 1.00 | | 05/25/2016 07:00 | 5/27/16 18:48 | NAH | EPA 6010C |
| TCLP Chromium | 0.044 | mg/L | 0.00060 | 0.0020 | 0.0040 | 0.0040 | 1.00 | | 05/25/2016 07:00 | 5/27/16 18:48 | NAH | EPA 6010C |
| TCLP Lead | 0.67 | mg/L | 0.0014 | 0.0020 | 0.0040 | 0.0040 | 1.00 | | 05/25/2016 07:00 | 5/27/16 18:48 | NAH | EPA 6010C |
| TCLP Selenium | 0.0043 | mg/L | 0.0022 | 0.0065 | 0.013 | 0.013 | 1.00 | J | 05/25/2016 07:00 | 5/27/16 18:48 | NAH | EPA 6010C |

| | | | |
|-----------------|---------------------------------------|------------------|--------------------------|
| CT LAB#: 725921 | Sample Description: PBA13-IDW-2542-WW | Client Sample #: | Sampled: 05/18/2016 1340 |
|-----------------|---------------------------------------|------------------|--------------------------|

| Analyte | Result | Units | DL | DOD LOD | DOD LOQ | RL | DF | Qualifier | Prep Date/Time | Analysis Date/Time | Analyst | Method |
|--------------------------------|-----------------|------------|----------|------------|------------|---------|--------|-----------|-------------------|-----------------------|---------|-------------|
| TCLP Silver | <0.0020 | mg/L | 0.00070 | 0.0020 | 0.0040 | 0.0040 | 1.00 | U | 05/25/2016 07:00 | 5/27/16 18:48 | NAH | EPA 6010C |
| TCLP Mercury | 0.000036 | mg/L | 0.000030 | 0.000060 | 0.00012 | 0.00012 | 1.00 | J | 05/25/2016 07:00 | 5/31/16 08:36 | LJF | EPA 7470A |
| Organic Results | | | | | | | | | | | | |
| TCLP alpha-Chlordane | <0.00010 | mg/L | 0.000090 | 0.00010 | 0.00040 | 0.00040 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 16:30 | JJY | EPA 8081B ^ |
| TCLP Chlordane (Technical) | <0.0030 | mg/L | 0.0010 | 0.0030 | 0.0060 | 0.0060 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 16:30 | JJY | EPA 8081B ^ |
| TCLP Endrin | <0.00010 | mg/L | 0.000060 | 0.00010 | 0.00024 | 0.00024 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 16:30 | JJY | EPA 8081B ^ |
| TCLP gamma-Chlordane | <0.00010 | mg/L | 0.000070 | 0.00010 | 0.00024 | 0.00024 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 16:30 | JJY | EPA 8081B ^ |
| TCLP Heptachlor | <0.00010 | mg/L | 0.000060 | 0.00010 | 0.00024 | 0.00024 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 16:30 | JJY | EPA 8081B ^ |
| TCLP Heptachlor epoxide | <0.00010 | mg/L | 0.000070 | 0.00010 | 0.00024 | 0.00024 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 16:30 | JJY | EPA 8081B ^ |
| TCLP Lindane | <0.00010 | mg/L | 0.000070 | 0.00010 | 0.00024 | 0.00024 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 16:30 | JJY | EPA 8081B ^ |
| TCLP Methoxychlor | <0.00010 | mg/L | 0.000060 | 0.00010 | 0.00040 | 0.00040 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 16:30 | JJY | EPA 8081B ^ |
| TCLP Toxaphene | <0.0030 | mg/L | 0.0018 | 0.0030 | 0.0060 | 0.0056 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 16:30 | JJY | EPA 8081B ^ |
| TCLP SURR:2,4,5,6-CL4-m-xylene | 101 | % Recovery | 25 | | | 140 | 1.00 | | 05/25/2016 07:00 | 5/26/16 16:30 | JJY | EPA 8081B |
| TCLP SURR:Decachlorobiphenyl | 87 | % Recovery | 30 | | | 135 | 1.00 | | 05/25/2016 07:00 | 5/26/16 16:30 | JJY | EPA 8081B |
| TCLP 1,1-Dichloroethane | <0.050 | mg/L | 0.024 | 0.050 | 0.10 | 0.10 | 100.00 | U | 05/24/2016 14:00 | 5/26/16 11:33 | RLD | EPA 8260C |
| TCLP 1,2-Dichloroethane | <0.050 | mg/L | 0.030 | 0.050 | 0.10 | 0.10 | 100.00 | U | 05/24/2016 14:00 | 5/26/16 11:33 | RLD | EPA 8260C |
| TCLP 2-Butanone | <0.50 | mg/L | 0.24 | 0.50 | 1.0 | 1.0 | 100.00 | U | 05/24/2016 14:00 | 5/26/16 11:33 | RLD | EPA 8260C |
| TCLP Benzene | <0.050 | mg/L | 0.019 | 0.050 | 0.10 | 0.10 | 100.00 | U | 05/24/2016 14:00 | 5/26/16 11:33 | RLD | EPA 8260C |
| TCLP Carbon tetrachloride | <0.050 | mg/L | 0.023 | 0.050 | 0.10 | 0.10 | 100.00 | U | 05/24/2016 14:00 | 5/26/16 11:33 | RLD | EPA 8260C |
| TCLP Chlorobenzene | <0.050 | mg/L | 0.024 | 0.050 | 0.10 | 0.10 | 100.00 | U | 05/24/2016 14:00 | 5/26/16 11:33 | RLD | EPA 8260C |
| TCLP Chloroform | <0.025 | mg/L | 0.015 | 0.025 | 0.050 | 0.050 | 100.00 | U | 05/24/2016 14:00 | 5/26/16 11:33 | RLD | EPA 8260C |
| TCLP Tetrachloroethene | <0.050 | mg/L | 0.030 | 0.050 | 0.10 | 0.10 | 100.00 | U | 05/24/2016 14:00 | 5/26/16 11:33 | RLD | EPA 8260C |
| TCLP Trichloroethene | <0.050 | mg/L | 0.021 | 0.050 | 0.10 | 0.10 | 100.00 | U | 05/24/2016 14:00 | 5/26/16 11:33 | RLD | EPA 8260C |
| TCLP Vinyl chloride | <0.050 | mg/L | 0.018 | 0.050 | 0.10 | 0.10 | 100.00 | U | 05/24/2016 14:00 | 5/26/16 11:33 | RLD | EPA 8260C |
| TCLP 1,2 Dichloroethane-d4 | 103 | % Recovery | 81 | | | 118 | 1.00 | | 05/24/2016 14:00 | 5/26/16 11:33 | RLD | EPA 8260C |
| TCLP Bromofluorobenzene | 96 | % Recovery | 85 | | | 114 | 1.00 | | 05/24/2016 14:00 | 5/26/16 11:33 | RLD | EPA 8260C |

Unless specifically stated to the contrary, soil/sediment/sludge sample results reported on a Dry Weight Basis



| | | | |
|-----------------|---------------------------------------|------------------|--------------------------|
| CT LAB#: 725921 | Sample Description: PBA13-IDW-2542-WW | Client Sample #: | Sampled: 05/18/2016 1340 |
|-----------------|---------------------------------------|------------------|--------------------------|

| Analyte | Result | Units | DL | DOD LOD | DOD LOQ | RL | DF | Qualifier | Prep Date/Time | Analysis Date/Time | Analyst | Method |
|------------------------------------|---------|------------|--------|------------|------------|-------|------|-----------|-------------------|-----------------------|---------|-----------|
| TCLP d8-Toluene | 100 | % Recovery | 89 | | | 112 | 1.00 | | 05/24/2016 14:00 | 5/26/16 11:33 | RLD | EPA 8260C |
| TCLP Dibromofluoromethane | 100 | % Recovery | 80 | | | 119 | 1.00 | | 05/24/2016 14:00 | 5/26/16 11:33 | RLD | EPA 8260C |
| TCLP 1,4-Dichlorobenzene | <0.0040 | mg/L | 0.0019 | 0.0040 | 0.010 | 0.010 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 15:11 | RPN | EPA 8270D |
| TCLP 2,4,5-Trichlorophenol | <0.020 | mg/L | 0.011 | 0.020 | 0.050 | 0.050 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 15:11 | RPN | EPA 8270D |
| TCLP 2,4,6-Trichlorophenol | <0.020 | mg/L | 0.010 | 0.020 | 0.050 | 0.050 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 15:11 | RPN | EPA 8270D |
| TCLP 2,4-Dinitrotoluene | <0.0040 | mg/L | 0.0021 | 0.0040 | 0.010 | 0.010 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 15:11 | RPN | EPA 8270D |
| TCLP 2-Methylphenol | <0.020 | mg/L | 0.0086 | 0.020 | 0.050 | 0.050 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 15:11 | RPN | EPA 8270D |
| TCLP 3 & 4-Methylphenol | <0.036 | mg/L | 0.014 | 0.036 | 0.090 | 0.090 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 15:11 | RPN | EPA 8270D |
| TCLP Hexachlorobenzene | <0.0040 | mg/L | 0.0027 | 0.0040 | 0.010 | 0.010 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 15:11 | RPN | EPA 8270D |
| TCLP Hexachlorobutadiene | <0.0040 | mg/L | 0.0018 | 0.0040 | 0.010 | 0.010 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 15:11 | RPN | EPA 8270D |
| TCLP Hexachloroethane | <0.0040 | mg/L | 0.0022 | 0.0040 | 0.010 | 0.010 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 15:11 | RPN | EPA 8270D |
| TCLP Nitrobenzene | <0.0040 | mg/L | 0.0016 | 0.0040 | 0.010 | 0.010 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 15:11 | RPN | EPA 8270D |
| TCLP Pentachlorophenol | <0.020 | mg/L | 0.011 | 0.020 | 0.050 | 0.050 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 15:11 | RPN | EPA 8270D |
| TCLP Pyridine | <0.010 | mg/L | 0.0062 | 0.010 | 0.030 | 0.040 | 1.00 | U | 05/25/2016 07:00 | 5/26/16 15:11 | RPN | EPA 8270D |
| TCLP Surr: 2,4,6-Tribromophenol | 86 | % Recovery | 43 | | | 140 | 1.00 | | 05/25/2016 07:00 | 5/26/16 15:11 | RPN | EPA 8270D |
| TCLP Surr: 2-Fluorobiphenyl | 71 | % Recovery | 44 | | | 119 | 1.00 | | 05/25/2016 07:00 | 5/26/16 15:11 | RPN | EPA 8270D |
| TCLP Surr: 2-Fluorophenol | 45 | % Recovery | 19 | | | 119 | 1.00 | | 05/25/2016 07:00 | 5/26/16 15:11 | RPN | EPA 8270D |
| TCLP Surr: Nitrobenzene-d5 | 67 | % Recovery | 44 | | | 120 | 1.00 | | 05/25/2016 07:00 | 5/26/16 15:11 | RPN | EPA 8270D |
| TCLP Surr: Phenol-d5 | 29 | % Recovery | 1 | | | 114 | 1.00 | | 05/25/2016 07:00 | 5/26/16 15:11 | RPN | EPA 8270D |
| TCLP Surr: Terphenyl-d14 | 86 | % Recovery | 50 | | | 134 | 1.00 | | 05/25/2016 07:00 | 5/26/16 15:11 | RPN | EPA 8270D |

Sub Lab Results

| | | | | | | | | | | | | |
|-----------------|-----------------|--|--|--|--|--|------|--|------------------|--------------|-----|--------|
| TCLP Herbicides | <i>attached</i> | | | | | | 1.00 | | 05/25/2016 07:00 | 6/6/16 00:00 | SUB | SW8151 |
|-----------------|-----------------|--|--|--|--|--|------|--|------------------|--------------|-----|--------|

Notes:

^ Indicates the laboratory is NELAP accredited for this analyte by the indicated matrix and method. DL (detection limit), LOD (limit of detection), loq

(limit of quantitation) as defined by most recent DOD QSM version. The results reported relate only to the samples tested. This report
All samples were received intact and properly preserved unless otherwise noted. The Chain of Custody is attached.
shall not be reproduced, except in full, without written approval of this laboratory.

Submitted by: Eric T. Korthals
Project Manager
608-356-2760

This report has been specifically prepared to satisfy project or program requirements. These results are in compliance with NELAC requirements for the parameters where accreditation is required or available, unless noted in the case narrative.

| <u>Code</u> | <u>Description</u> | <u>QC Qualifiers</u> |
|-------------|---|----------------------|
| B | Analyte detected in the associated Method Blank. | |
| C | Toxicity present in BOD sample. | |
| D | Diluted Out. | |
| E | Safe, No Total Coliform detected. | |
| F | Unsafe, Total Coliform detected, no E. Coli detected. | |
| G | Unsafe, Total Coliform detected and E. Coli detected. | |
| H | Holding time exceeded. | |
| I | BOD incubator temperature was outside acceptance limits during test period. | |
| J | Estimated value. | |
| L | Significant peaks were detected outside the chromatographic window. | |
| M | Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits. | |
| N | Insufficient BOD oxygen depletion. | |
| O | Complete BOD oxygen depletion. | |
| P | Concentration of analyte differs more than 40% between primary and confirmation analysis. | |
| Q | Laboratory Control Sample outside acceptance limits. | |
| R | See Narrative at end of report. | |
| S | Surrogate standard recovery outside acceptance limits due to apparent matrix effects. | |
| T | Sample received with improper preservation or temperature. | |
| U | Analyte concentration was below detection limit. | |
| V | Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference. | |
| W | Sample amount received was below program minimum. | |
| X | Analyte exceeded calibration range. | |
| Y | Replicate/Duplicate precision outside acceptance limits. | |
| Z | Specified calibration criteria was not met. | |

Current CT Laboratories Certifications

Kansas NELAP ID# E-10368
Kentucky ID# 0023
ISO/IEC 17025-2005 A2LA Cert # 3806.01
North Carolina ID# 674
Wisconsin (WDNR) Chemistry ID# 157066030
Wisconsin (DATCP) Bacteriology ID# 105-289
DoD-ELAP A2LA 3806.01
GA EPD Stipulation ID E871111, Expires Annually
Louisiana ID # 115843
Virginia ID# 7608
Illinois NELAP ID # 002413
Wisconsin (WOSB) ID# WI-5499-WBE
Maryland ID# 344



Record of Sample Receipt and Inspection

Comments/Discrepancies

This is the record of the shipment conditions and the inspection records for the samples received and reported as a sample delivery group (SDG). All of the samples were inspected and observed to conform to our receipt policies, except as noted below.

The following discrepancies were noted:

| Discrepancy | Resolution |
|---|--|
| The temperature was out of the acceptable range.BRG | |
| Ice was melted. BRG | Per the client please proceed. SLM |
| Sample ID: 725921 (5/18 @ 13:40). Sample received broken. BRG | Please proceed with the remaining sample SLM |

Coolers

| Cooler # | Temperature Gun | Temperature | COC # | Airbill # | Temp Required? |
|----------|-----------------|-------------|-------|--------------------|----------------|
| 00113985 | I | 9.0 | | 1Z1A377E0340782880 | X |

Inspection Checklist

| # | Question | Result |
|----|--|--------|
| 1 | Were shipping coolers sealed? | Yes |
| 2 | Were custody seals intact? | Yes |
| 3 | Were cooler temperatures in range of 0-6? | No |
| 4 | Was ice present? | No |
| 5 | Were COC's received/information complete/signed and dated? | Yes |
| 6 | Were sample containers intact and match COC? | No |
| 7 | Were sample labels intact and match COC? | Yes |
| 8 | Were the correct containers and volumes received? | Yes |
| 9 | Were samples received within EPA hold times? | Yes |
| 10 | All samples were checked for pH and met the standard. Exceptions are noted above under discrepancy. (water only) | Yes |
| 11 | Were pH ranges acceptable? (voa's excluded) | NA |
| 12 | Were VOA samples free of headspace (less than 6mm)? | NA |

Lab Report #: L16051594
Lab Project #: 2694.005
Project Name: CT Labs DOD
Lab Contact: Emily Yoak

Samples Received

| Client ID | Laboratory ID | Date Collected | Date Received |
|--------------------------|---------------|------------------|------------------|
| 725919/PBA13-IDW-2541-WS | L16051594-01 | 05/25/2016 07:00 | 05/27/2016 10:41 |

Certificate of Analysis

| | | |
|--|---------------------------------|------------------------------------|
| Sample #: L16051594-01 | PrePrep Method: | Instrument: HP17 |
| Client ID: 725919/PBA13-IDW-2541-WS | Prep Method: METHOD | Prep Date: 06/01/2016 17:00 |
| Matrix: TCLP Leach | Analytical Method: 8151A | Cal Date: 05/04/2016 18:01 |
| Workgroup #: WG571266 | Analyst: ECL | Run Date: 06/03/2016 20:39 |
| Collect Date: 05/25/2016 07:00 | Dilution: 1 | File ID: 17G22089.F |
| Sample Tag: 01 | Units: ug/L | |

| Analyte | Result | Qual | LOQ | LOD | DL | EPA HW# | Reg. Limit |
|-------------------|--------|-------|------|------|-------|---------|------------|
| 2,4-D | | U,CT1 | 20.0 | 10.0 | 5.00 | D016 | 10000 |
| 2,4,5-TP (Silvex) | | U,CT1 | 2.00 | 1.00 | 0.500 | D017 | 1000 |

| Surrogate | Recovery | Lower Limit | Upper Limit | Q |
|-------------------------------|----------|-------------|-------------|---|
| 2,4-Dichlorophenylacetic acid | 50.7 | 32 | 138 | |

| | |
|-------|--|
| U,CT1 | Analyte was not detected. The concentration is below the reported LOD. Cooler temperature at sample receipt exceeded regulatory limit. |
|-------|--|

METHOD BLANK REPORT

Login Number: L16051594 Prep Date: 06/01/16 17:00 Sample ID: WG570849-01
 Instrument ID: HP17 Run Date: 06/03/16 14:11 Prep Method: METHOD
 File ID: 17G22074.F Analyst: ECL Method: 8151A
 Workgroup (AAB#): WG571266 Matrix: Water Units: ug/L
 Contract #: _____ Cal ID: HP17-04-MAY-16

| Analytes | DL | LOQ | Concentration | Dilution | Qualifier |
|-------------------|--------|-------|---------------|----------|-----------|
| 2,4-D | 0.500 | 2.00 | 0.500 | 1 | U |
| 2,4,5-TP (Silvex) | 0.0500 | 0.200 | 0.0500 | 1 | U |

| Surrogates | % Recovery | Surrogate Limits | Qualifier |
|-------------------------------|------------|------------------|-----------|
| 2,4-Dichlorophenylacetic acid | 64.4 | 32 - 138 | PASS |

DL Method Detection Limit
 LOQ Reporting/Practical Quantitation Limit
 ND Analyte Not detected at or above reporting limit
 * |Analyte concentration| > 1/2 RL



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L16051594 Run Date: 06/03/2016 Sample ID: WG570849-02
 Instrument ID: HP17 Run Time: 14:37 Prep Method: METHOD
 File ID: 17G22075.F Analyst: ECL Method: 8151A
 Workgroup (AAB#): WG571266 Matrix: Water Units: ug/L
 QC Key: DOD5 Lot#: STD74844 Cal ID: HP17-04-MAY-16

| Analytes | Expected | Found | % Rec | LCS Limits | Q |
|-------------------|----------|-------|-------|------------|---|
| 2,4-D | 5.00 | 2.87 | 57.3 | 45 - 152 | |
| 2,4,5-TP (Silvex) | 0.500 | 0.312 | 62.4 | 51 - 134 | |

| Surrogates | % Recovery | Surrogate Limits | Qualifier |
|-------------------------------|------------|------------------|-----------|
| 2,4-Dichlorophenylacetic acid | 58.4 | 32 - 138 | PASS |

* EXCEEDS %REC LIMIT



Record of Sample Receipt and Inspection

Comments/Discrepancies

This is the record of the shipment conditions and the inspection records for the samples received and reported as a sample delivery group (SDG). All of the samples were inspected and observed to conform to our receipt policies, except as noted below.

The following discrepancies were noted:

| Discrepancy | Resolution |
|---|---|
| No date/time on container. Will log per information on COC. BRG | Please log per the information on the COC and proceed. -eny |

Coolers

| Cooler # | Temperature Gun | Temperature | COC # | Airbill # | Temp Required? |
|----------|-----------------|-------------|-------|--------------|----------------|
| 00113448 | I | 4.0 | | 420457505279 | X |

Inspection Checklist

| # | Question | Result |
|----|--|--------|
| 1 | Were shipping coolers sealed? | Yes |
| 2 | Were custody seals intact? | Yes |
| 3 | Were cooler temperatures in range of 0-6? | Yes |
| 4 | Was ice present? | Yes |
| 5 | Were COC's received/information complete/signed and dated? | Yes |
| 6 | Were sample containers intact and match COC? | Yes |
| 7 | Were sample labels intact and match COC? | No |
| 8 | Were the correct containers and volumes received? | Yes |
| 9 | Were samples received within EPA hold times? | Yes |
| 10 | All samples were checked for pH and met the standard. Exceptions are noted above under discrepancy. (water only) | Yes |
| 11 | Were pH ranges acceptable? (voa's excluded) | NA |
| 12 | Were VOA samples free of headspace (less than 6mm)? | NA |

Lab Report #: L16060019
Lab Project #: 2694.005
Project Name: CT Labs DOD
Lab Contact: Emily Yoak

Samples Received

| Client ID | Laboratory ID | Date Collected | Date Received |
|-------------------|---------------|------------------|------------------|
| PBA13-IDW-2542-WW | L16060019-01 | 05/18/2016 13:40 | 06/01/2016 10:39 |

Certificate of Analysis

| | | |
|---------------------------------------|---------------------------------|------------------------------------|
| Sample #: L16060019-01 | PrePrep Method: | Instrument: HP17 |
| Client ID: PBA13-IDW-2542-WW | Prep Method: METHOD | Prep Date: 06/01/2016 17:00 |
| Matrix: TCLP Leach | Analytical Method: 8151A | Cal Date: 05/04/2016 18:01 |
| Workgroup #: WG571266 | Analyst: ECL | Run Date: 06/03/2016 18:04 |
| Collect Date: 05/18/2016 13:40 | Dilution: 1 | File ID: 17G22083.F |
| Sample Tag: 01 | Units: ug/L | |

| Analyte | Result | Qual | LOQ | LOD | DL | EPA HW# | Reg. Limit |
|-------------------|--------|------|------|------|-------|---------|------------|
| 2,4-D | | U | 20.0 | 10.0 | 5.00 | D016 | 10000 |
| 2,4,5-TP (Silvex) | | U | 2.00 | 1.00 | 0.500 | D017 | 1000 |

| Surrogate | Recovery | Lower Limit | Upper Limit | Q |
|-------------------------------|----------|-------------|-------------|---|
| 2,4-Dichlorophenylacetic acid | 67.4 | 32 | 138 | |

| | |
|---|--|
| U | Analyte was not detected. The concentration is below the reported LOD. |
|---|--|

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L16060019 Prep Date: 06/01/16 17:00 Sample ID: WG570849-01
 Instrument ID: HP17 Run Date: 06/03/16 14:11 Prep Method: METHOD
 File ID: 17G22074.F Analyst: ECL Method: 8151A
 Workgroup (AAB#): WG571266 Matrix: Water Units: ug/L
 Contract #: _____ Cal ID: HP17-04-MAY-16

| Analytes | DL | LOQ | Concentration | Dilution | Qualifier |
|-------------------|--------|-------|---------------|----------|-----------|
| 2,4-D | 0.500 | 2.00 | 0.500 | 1 | U |
| 2,4,5-TP (Silvex) | 0.0500 | 0.200 | 0.0500 | 1 | U |

| Surrogates | % Recovery | Surrogate Limits | Qualifier |
|-------------------------------|------------|------------------|-----------|
| 2,4-Dichlorophenylacetic acid | 64.4 | 32 - 138 | PASS |

DL Method Detection Limit
 LOQ Reporting/Practical Quantitation Limit
 ND Analyte Not detected at or above reporting limit
 * |Analyte concentration| > 1/2 RL



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L16060019 Run Date: 06/03/2016 Sample ID: WG570849-02
 Instrument ID: HP17 Run Time: 14:37 Prep Method: METHOD
 File ID: 17G22075.F Analyst: ECL Method: 8151A
 Workgroup (AAB#): WG571266 Matrix: Water Units: ug/L
 QC Key: DOD5 Lot#: STD74844 Cal ID: HP17-04-MAY-16

| Analytes | Expected | Found | % Rec | LCS Limits | Q |
|-------------------|----------|-------|-------|------------|---|
| 2,4-D | 5.00 | 2.87 | 57.3 | 45 - 152 | |
| 2,4,5-TP (Silvex) | 0.500 | 0.312 | 62.4 | 51 - 134 | |

| Surrogates | % Recovery | Surrogate Limits | Qualifier |
|-------------------------------|------------|------------------|-----------|
| 2,4-Dichlorophenylacetic acid | 58.4 | 32 - 138 | PASS |

* EXCEEDS %REC LIMIT



QC SUMMARY REPORT

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Duplicate

| | | | | | | |
|-------------------|--------|----------------|------------|-----------------|---------|---------|
| Analytical Run #: | 126264 | Analysis Date: | 05/20/2016 | Prep Batch #: | Matrix: | SOIL |
| CTLab #: | 726875 | Analysis Time: | 15:00 | Prep Date/Time: | Method: | SW8000C |
| Parent Sample #: | 725918 | Analyst: | AMA | Prep Analyst: | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|-----------------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Solids, Percent | 64.4 | % | 55.5 | | | | | 15 | 8 |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Duplicate

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|--|---------|---------|
| Analytical Run #: | 126351 | Analysis Date: | 05/24/2016 | Prep Batch #: | | Matrix: | SOIL |
| CTLab #: | 727575 | Analysis Time: | 12:50 | Prep Date/Time: | | Method: | SW9045C |
| Parent Sample #: | 725918 | Analyst: | MER | Prep Analyst: | | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|---------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| pH | 6.80 | S.U. | | | | | | 0 | 1 |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Duplicate

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|--|---------|--------------|
| Analytical Run #: | 126351 | Analysis Date: | 05/24/2016 | Prep Batch #: | | Matrix: | GROUND WATER |
| CTLab #: | 727576 | Analysis Time: | 12:50 | Prep Date/Time: | | Method: | SW9045C |
| Parent Sample #: | 725920 | Analyst: | MER | Prep Analyst: | | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|---------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| pH | 2.00 | S.U. | | | | | | 1 | 1 |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Duplicate

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|--|---------|-------|
| Analytical Run #: | 126369 | Analysis Date: | 05/24/2016 | Prep Batch #: | | Matrix: | SOIL |
| CTLab #: | 727557 | Analysis Time: | 14:00 | Prep Date/Time: | | Method: | SW7.3 |
| Parent Sample #: | 725918 | Analyst: | SAW | Prep Analyst: | | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|------------------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Sulfide Reactive | 100 | mg/kg | BDL | U | | | | 0 | 20 |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Lab Control Spike Soil

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|--|---------|-------|
| Analytical Run #: | 126369 | Analysis Date: | 05/24/2016 | Prep Batch #: | | Matrix: | SOLID |
| CTLab #: | 727558 | Analysis Time: | 14:00 | Prep Date/Time: | | Method: | SW7.3 |
| Parent Sample #: | | Analyst: | SAW | Prep Analyst: | | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|------------------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Sulfide Reactive | 100 | mg/kg | | | 100 | 100 | 70 --- 130 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Method Blank Soil

| | | | | | | |
|-------------------|--------|----------------|------------|-----------------|---------|-------|
| Analytical Run #: | 126369 | Analysis Date: | 05/24/2016 | Prep Batch #: | Matrix: | SOLID |
| CTLab #: | 727559 | Analysis Time: | 14:00 | Prep Date/Time: | Method: | SW7.3 |
| Parent Sample #: | | Analyst: | SAW | Prep Analyst: | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|------------------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Sulfide Reactive | 100 | mg/kg | | U | 0.00 | | 100 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Matrix Spike Soil

| | | | | | | |
|-------------------|--------|----------------|------------|-----------------|---------|-------|
| Analytical Run #: | 126369 | Analysis Date: | 05/24/2016 | Prep Batch #: | Matrix: | SOIL |
| CTLab #: | 727556 | Analysis Time: | 14:00 | Prep Date/Time: | Method: | SW7.3 |
| Parent Sample #: | 725918 | Analyst: | SAW | Prep Analyst: | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|------------------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Sulfide Reactive | 100 | mg/kg | BDL | | 100 | 100 | 70-130 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Duplicate

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|--|---------|-------|
| Analytical Run #: | 126370 | Analysis Date: | 05/24/2016 | Prep Batch #: | | Matrix: | SOIL |
| CTLab #: | 727537 | Analysis Time: | 14:00 | Prep Date/Time: | | Method: | SW7.3 |
| Parent Sample #: | 725918 | Analyst: | SAW | Prep Analyst: | | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|-------------------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Cyanide, Reactive | 20 | mg/kg | BDL | U | | | | 0 | 20 |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Lab Control Spike Soil

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|--|---------|-------|
| Analytical Run #: | 126370 | Analysis Date: | 05/24/2016 | Prep Batch #: | | Matrix: | SOLID |
| CTLab #: | 727539 | Analysis Time: | 14:00 | Prep Date/Time: | | Method: | SW7.3 |
| Parent Sample #: | | Analyst: | SAW | Prep Analyst: | | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|-------------------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Cyanide, Reactive | 20.0 | mg/kg | | | 20.0 | 100 | 70 --- 130 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Method Blank Soil

| | | | | | | |
|-------------------|--------|----------------|------------|-----------------|---------|-------|
| Analytical Run #: | 126370 | Analysis Date: | 05/24/2016 | Prep Batch #: | Matrix: | SOLID |
| CTLab #: | 727540 | Analysis Time: | 14:00 | Prep Date/Time: | Method: | SW7.3 |
| Parent Sample #: | | Analyst: | SAW | Prep Analyst: | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|-------------------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Cyanide, Reactive | 20 | mg/kg | | U | 0.00 | | | 8 | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Matrix Spike Soil

| | | | | | | |
|-------------------|--------|----------------|------------|-----------------|---------|-------|
| Analytical Run #: | 126370 | Analysis Date: | 05/24/2016 | Prep Batch #: | Matrix: | SOIL |
| CTLab #: | 727538 | Analysis Time: | 14:00 | Prep Date/Time: | Method: | SW7.3 |
| Parent Sample #: | 725918 | Analyst: | SAW | Prep Analyst: | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|-------------------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Cyanide, Reactive | 20 | mg/kg | BDL | U | 20.0 | 0 | 70 --- 130 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Duplicate

| | | | | | | |
|-------------------|--------|----------------|------------|-----------------|---------|--------------|
| Analytical Run #: | 126374 | Analysis Date: | 05/24/2016 | Prep Batch #: | Matrix: | GROUND WATER |
| CTLab #: | 727567 | Analysis Time: | 15:00 | Prep Date/Time: | Method: | SW9034 |
| Parent Sample #: | 725920 | Analyst: | SAW | Prep Analyst: | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|---------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Sulfide | 1.00 | mg/L | <1.00 | U | | | | 0 | 20 |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Lab Control Spike Water

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|--|---------|--------|
| Analytical Run #: | 126374 | Analysis Date: | 05/24/2016 | Prep Batch #: | | Matrix: | LIQUID |
| CTLab #: | 727555 | Analysis Time: | 15:00 | Prep Date/Time: | | Method: | SW9034 |
| Parent Sample #: | | Analyst: | SAW | Prep Analyst: | | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|---------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Sulfide | 4.000 | mg/L | | | 5.000 | 80 | 80 --- 120 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Method Blank Water

| | | | | | | |
|-------------------|--------|----------------|------------|-----------------|---------|--------|
| Analytical Run #: | 126374 | Analysis Date: | 05/24/2016 | Prep Batch #: | Matrix: | LIQUID |
| CTLab #: | 727568 | Analysis Time: | 15:00 | Prep Date/Time: | Method: | SW9034 |
| Parent Sample #: | | Analyst: | SAW | Prep Analyst: | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|---------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Sulfide | 1.0 | mg/L | | U | 0 | | 1.5 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Matrix Spike Duplicate Water

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|--|---------|--------------|
| Analytical Run #: | 126374 | Analysis Date: | 05/24/2016 | Prep Batch #: | | Matrix: | GROUND WATER |
| CTLab #: | 727566 | Analysis Time: | 15:00 | Prep Date/Time: | | Method: | SW9034 |
| Parent Sample #: | 727565 | Analyst: | SAW | Prep Analyst: | | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|---------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Sulfide | 1.20 | mg/L | BDL | | 2.50 | 48 | 80 --- 120 | 0 | 20 |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Matrix Spike Water

| | | | | | | |
|-------------------|--------|----------------|------------|-----------------|---------|--------------|
| Analytical Run #: | 126374 | Analysis Date: | 05/24/2016 | Prep Batch #: | Matrix: | GROUND WATER |
| CTLab #: | 727565 | Analysis Time: | 15:00 | Prep Date/Time: | Method: | SW9034 |
| Parent Sample #: | 725920 | Analyst: | SAW | Prep Analyst: | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|---------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Sulfide | 1.20 | mg/L | BDL | | 2.50 | 48 | 80 --- 120 | | 20 |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Lab Control Spike Water

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|------------------|---------|---------|
| Analytical Run #: | 126402 | Analysis Date: | 05/25/2016 | Prep Batch #: | 57430 | Matrix: | LIQUID |
| CTLab #: | 727762 | Analysis Time: | 15:19 | Prep Date/Time: | 05/25/2016 10:45 | Method: | SW9012A |
| Parent Sample #: | | Analyst: | MER | Prep Analyst: | MER | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|---------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Cyanide | 43.90 | ug/L | | | 40.00 | 110 | 83 --- 116 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Method Blank Water

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|------------------|---------|---------|
| Analytical Run #: | 126402 | Analysis Date: | 05/25/2016 | Prep Batch #: | 57430 | Matrix: | LIQUID |
| CTLab #: | 727761 | Analysis Time: | 15:22 | Prep Date/Time: | 05/25/2016 10:45 | Method: | SW9012A |
| Parent Sample #: | | Analyst: | MER | Prep Analyst: | MER | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|---------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Cyanide | 5 | ug/L | | U | 0 | | 12 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Matrix Spike Duplicate Water

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|------------------|---------|--------------|
| Analytical Run #: | 126402 | Analysis Date: | 05/25/2016 | Prep Batch #: | 57430 | Matrix: | GROUND WATER |
| CTLab #: | 727768 | Analysis Time: | 15:32 | Prep Date/Time: | 05/25/2016 10:45 | Method: | SW9012A |
| Parent Sample #: | 727767 | Analyst: | MER | Prep Analyst: | MER | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|---------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Cyanide | 35.2 | ug/L | BDL | | 40.0 | 88 | 83 --- 116 | 10 | 20 |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Matrix Spike Water

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|------------------|---------|--------------|
| Analytical Run #: | 126402 | Analysis Date: | 05/25/2016 | Prep Batch #: | 57430 | Matrix: | GROUND WATER |
| CTLab #: | 727767 | Analysis Time: | 15:29 | Prep Date/Time: | 05/25/2016 10:45 | Method: | SW9012A |
| Parent Sample #: | 725920 | Analyst: | MER | Prep Analyst: | MER | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|---------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Cyanide | 31.9 | ug/L | BDL | | 40.0 | 80 | 83 --- 116 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Duplicate

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|-----------------|---------|--------|
| Analytical Run #: | 126420 | Analysis Date: | 05/27/2016 | Prep Batch #: | 57426 | Matrix: | TCLP |
| CTLab #: | 727726 | Analysis Time: | 18:20 | Prep Date/Time: | 05/25/2016 1:00 | Method: | SW6010 |
| Parent Sample #: | 725919 | Analyst: | NAH | Prep Analyst: | LJF | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|----------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Arsenic | 0.00928 | mg/L | 0.0096 | | | | 24 | 3 | 20 |
| Barium | 0.266 | mg/L | 0.27 | | | | 1.80 | 1 | 20 |
| Cadmium | 0.00382 | mg/L | 0.0038 | | | | 2.0 | 1 | 20 |
| Chromium | 0.00307 | mg/L | 0.0033 | | | | 4.0 | 7 | 20 |
| Lead | 0.270 | mg/L | 0.27 | | | | 4.0 | 0 | 20 |
| Selenium | 0.00940 | mg/L | 0.011 | | | | 13.0 | 16 | 20 |
| Silver | 0.000700 | mg/L | <0.000700U | | | | 4.0 | 0 | 20 |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Lab Control Spike Water

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|-----------------|---------|--------|
| Analytical Run #: | 126420 | Analysis Date: | 05/27/2016 | Prep Batch #: | 57426 | Matrix: | LIQUID |
| CTLab #: | 727725 | Analysis Time: | 17:34 | Prep Date/Time: | 05/25/2016 1:00 | Method: | SW6010 |
| Parent Sample #: | | Analyst: | NAH | Prep Analyst: | LJF | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|----------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Arsenic | 0.860 | mg/L | | | 0.800 | 108 | 87 --- 113 | | |
| Barium | 0.868 | mg/L | | | 0.800 | 108 | 88 --- 113 | | |
| Cadmium | 0.0217 | mg/L | | | 0.0200 | 108 | 88 --- 113 | | |
| Chromium | 0.0840 | mg/L | | | 0.0800 | 105 | 90 --- 113 | | |
| Lead | 0.225 | mg/L | | | 0.200 | 112 | 86 --- 113 | | |
| Selenium | 0.884 | mg/L | | | 0.800 | 110 | 83 --- 114 | | |
| Silver | 0.0202 | mg/L | | | 0.0200 | 101 | 84 --- 115 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Method Blank Water

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|-----------------|---------|--------|
| Analytical Run #: | 126420 | Analysis Date: | 05/27/2016 | Prep Batch #: | 57426 | Matrix: | LIQUID |
| CTLab #: | 727724 | Analysis Time: | 17:40 | Prep Date/Time: | 05/25/2016 1:00 | Method: | SW6010 |
| Parent Sample #: | | Analyst: | NAH | Prep Analyst: | LJF | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|----------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Arsenic | 0.004 | mg/L | | U | 0 | | 0.012 | | |
| Barium | 0.00029 | mg/L | | U | 0 | | 00090 | | |
| Cadmium | 0.0003 | mg/L | | U | 0 | | .0010 | | |
| Chromium | 0.0006 | mg/L | | U | 0 | | .0020 | | |
| Lead | 0.0014 | mg/L | | U | 0 | | .0020 | | |
| Selenium | 0.0022 | mg/L | | U | 0 | | .0065 | | |
| Silver | 0.0007 | mg/L | | U | 0 | | .0020 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Matrix Spike Duplicate Water

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|-----------------|---------|--------|
| Analytical Run #: | 126420 | Analysis Date: | 05/27/2016 | Prep Batch #: | 57426 | Matrix: | TCLP |
| CTLab #: | 727728 | Analysis Time: | 18:34 | Prep Date/Time: | 05/25/2016 1:00 | Method: | SW6010 |
| Parent Sample #: | 727727 | Analyst: | NAH | Prep Analyst: | LJF | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|----------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Arsenic | 0.865 | mg/L | 0.0096 | | 0.800 | 107 | 87 --- 113 | 2 | 20 |
| Barium | 1.40 | mg/L | 0.27 | | 0.800 | 141 | 88 --- 113 | 3 | 20 |
| Cadmium | 0.0233 | mg/L | 0.0038 | | 0.0200 | 98 | 88 --- 113 | 1 | 20 |
| Chromium | 0.0843 | mg/L | 0.0033 | | 0.0800 | 101 | 90 --- 113 | 0 | 20 |
| Lead | 0.463 | mg/L | 0.27 | | 0.200 | 96 | 86 --- 113 | 0 | 20 |
| Selenium | 1.02 | mg/L | 0.011 | | 0.800 | 126 | 83 --- 114 | 1 | 20 |
| Silver | 0.0227 | mg/L | BDL | | 0.0200 | 114 | 84 --- 115 | 2 | 20 |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Matrix Spike Water

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|-----------------|---------|--------|
| Analytical Run #: | 126420 | Analysis Date: | 05/27/2016 | Prep Batch #: | 57426 | Matrix: | TCLP |
| CTLab #: | 727727 | Analysis Time: | 18:27 | Prep Date/Time: | 05/25/2016 1:00 | Method: | SW6010 |
| Parent Sample #: | 725919 | Analyst: | NAH | Prep Analyst: | LJF | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|----------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Arsenic | 0.852 | mg/L | 0.0096 | | 0.800 | 105 | 87 --- 113 | | |
| Barium | 1.36 | mg/L | 0.27 | | 0.800 | 136 | 88 --- 113 | | |
| Cadmium | 0.0236 | mg/L | 0.0038 | | 0.0200 | 99 | 88 --- 113 | | |
| Chromium | 0.0847 | mg/L | 0.0033 | | 0.0800 | 102 | 90 --- 113 | | |
| Lead | 0.461 | mg/L | 0.27 | | 0.200 | 96 | 86 --- 113 | | |
| Selenium | 1.03 | mg/L | 0.011 | | 0.800 | 127 | 83 --- 114 | | |
| Silver | 0.0223 | mg/L | BDL | | 0.0200 | 112 | 84 --- 115 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Duplicate

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|------------------|---------|------|
| Analytical Run #: | 126512 | Analysis Date: | 05/31/2016 | Prep Batch #: | 57463 | Matrix: | TCLP |
| CTLab #: | 728737 | Analysis Time: | 08:26 | Prep Date/Time: | 05/27/2016 07:30 | Method: | |
| Parent Sample #: | 725919 | Analyst: | LJF | Prep Analyst: | LJF | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|---------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Mercury | 0.0000300 | mg/L | <0.0000300 | | | | 0.12 | 0 | 20 |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Lab Control Spike Water

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|------------------|---------|--------|
| Analytical Run #: | 126512 | Analysis Date: | 05/31/2016 | Prep Batch #: | 57463 | Matrix: | LIQUID |
| CTLab #: | 728736 | Analysis Time: | 08:19 | Prep Date/Time: | 05/27/2016 07:30 | Method: | |
| Parent Sample #: | | Analyst: | LJF | Prep Analyst: | LJF | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|---------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Mercury | 0.00273 | mg/L | | | 0.00300 | 91 | 82 --- 119 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Method Blank Water

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|------------------|---------|--------|
| Analytical Run #: | 126512 | Analysis Date: | 05/31/2016 | Prep Batch #: | 57463 | Matrix: | LIQUID |
| CTLab #: | 728735 | Analysis Time: | 08:21 | Prep Date/Time: | 05/27/2016 07:30 | Method: | |
| Parent Sample #: | | Analyst: | LJF | Prep Analyst: | LJF | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|---------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Mercury | 0.00003 | mg/L | | U | 0 | | 00006 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Matrix Spike Duplicate Water

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|------------------|---------|------|
| Analytical Run #: | 126512 | Analysis Date: | 05/31/2016 | Prep Batch #: | 57463 | Matrix: | TCLP |
| CTLab #: | 728739 | Analysis Time: | 08:34 | Prep Date/Time: | 05/27/2016 07:30 | Method: | |
| Parent Sample #: | 728738 | Analyst: | LJF | Prep Analyst: | LJF | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|---------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Mercury | 0.00196 | mg/L | BDL | | 0.00200 | 98 | 82 --- 119 | 7 | 20 |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Matrix Spike Water

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|------------------|---------|------|
| Analytical Run #: | 126512 | Analysis Date: | 05/31/2016 | Prep Batch #: | 57463 | Matrix: | TCLP |
| CTLab #: | 728738 | Analysis Time: | 08:28 | Prep Date/Time: | 05/27/2016 07:30 | Method: | |
| Parent Sample #: | 725919 | Analyst: | LJF | Prep Analyst: | LJF | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|---------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Mercury | 0.00182 | mg/L | BDL | | 0.00200 | 91 | 82 --- 119 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Lab Control Spike Soil

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|------------------|---------|--------|
| Analytical Run #: | 126326 | Analysis Date: | 05/24/2016 | Prep Batch #: | 57397 | Matrix: | SOLID |
| CTLab #: | 727025 | Analysis Time: | 00:03 | Prep Date/Time: | 05/23/2016 13:30 | Method: | SW8082 |
| Parent Sample #: | | Analyst: | JJY | Prep Analyst: | JDB | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|--------------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Aroclor-1016 | 463 | ug/kg | | | 500 | 93 | 47 --- 134 | | 30 |
| Aroclor-1260 | 458 | ug/kg | | | 500 | 92 | 53 --- 140 | | 30 |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Method Blank Soil

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|------------------|---------|--------|
| Analytical Run #: | 126326 | Analysis Date: | 05/23/2016 | Prep Batch #: | 57397 | Matrix: | SOLID |
| CTLab #: | 727024 | Analysis Time: | 23:41 | Prep Date/Time: | 05/23/2016 13:30 | Method: | SW8082 |
| Parent Sample #: | | Analyst: | JJY | Prep Analyst: | JDB | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|--------------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Aroclor-1016 | 5 | ug/kg | | U | 0 | | 15 | | |
| Aroclor-1221 | 7 | ug/kg | | U | 0 | | 15 | | |
| Aroclor-1232 | 9 | ug/kg | | U | 0 | | 15 | | |
| Aroclor-1242 | 7 | ug/kg | | U | 0 | | 15 | | |
| Aroclor-1248 | 7 | ug/kg | | U | 0 | | 15 | | |
| Aroclor-1254 | 9 | ug/kg | | U | 0 | | 15 | | |
| Aroclor-1260 | 6 | ug/kg | | U | 0 | | 15 | | |
| Aroclor-1262 | 7 | ug/kg | | U | 0 | | 15 | | |
| Aroclor-1268 | 5 | ug/kg | | U | 0 | | 15 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Matrix Spike Duplicate Soil

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|------------------|---------|--------|
| Analytical Run #: | 126326 | Analysis Date: | 05/24/2016 | Prep Batch #: | 57397 | Matrix: | SOIL |
| CTLab #: | 727028 | Analysis Time: | 01:29 | Prep Date/Time: | 05/23/2016 13:30 | Method: | SW8082 |
| Parent Sample #: | 727027 | Analyst: | JJY | Prep Analyst: | JDB | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|--------------------|------------------|------------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Aroclor-1016 | 836 | ug/kg | BDL | | 896 | 93 | 47 --- 134 | 3 | 30 |
| Aroclor-1221 | 12.5 | | BDL | U | 896 | 0 | 70 --- 130 | 0 | 30 |
| Aroclor-1232 | 16.1 | | BDL | U | 896 | 0 | 70 --- 130 | 0 | 30 |
| Aroclor-1242 | 12.5 | | BDL | U | 896 | 0 | 70 --- 130 | 0 | 30 |
| Aroclor-1248 | 12.5 | | BDL | U | 896 | 0 | 70 --- 130 | 0 | 30 |
| Aroclor-1254 | 16.1 | | BDL | U | 896 | 0 | 67 --- 135 | 0 | 30 |
| Aroclor-1260 | 725 | ug/kg | 64.4 | | 896 | 74 | 53 --- 140 | 6 | 30 |
| Aroclor-1262 | 12.5 | | BDL | U | 896 | 0 | 70 --- 130 | 0 | 30 |
| Aroclor-1268 | 8.96 | | BDL | U | 896 | 0 | 70 --- 130 | 0 | 30 |
| Surr: 2,4,5,6-TCMX | 110 | % Recovery | | | 100 | 110 | 44 --- 130 | | |
| Surr: DCBP | 99.8 | % Recovery | | | 100 | 99.8 | 54 --- 141 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Matrix Spike Soil

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|------------------|---------|--------|
| Analytical Run #: | 126326 | Analysis Date: | 05/24/2016 | Prep Batch #: | 57397 | Matrix: | SOIL |
| CTLab #: | 727027 | Analysis Time: | 01:07 | Prep Date/Time: | 05/23/2016 13:30 | Method: | SW8082 |
| Parent Sample #: | 725918 | Analyst: | JJY | Prep Analyst: | JDB | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|--------------------|------------------|------------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Aroclor-1016 | 863 | ug/kg | BDL | | 901 | 96 | 47 --- 134 | | |
| Aroclor-1221 | 12.6 | | BDL | U | 901 | 0 | 70 --- 130 | | |
| Aroclor-1232 | 16.2 | | BDL | U | 901 | 0 | 70 --- 130 | | |
| Aroclor-1242 | 12.6 | | BDL | U | 901 | 0 | 70 --- 130 | | |
| Aroclor-1248 | 12.6 | | BDL | U | 901 | 0 | 70 --- 130 | | |
| Aroclor-1254 | 16.2 | | 202 | U | 901 | 0 | 67 --- 135 | | |
| Aroclor-1260 | 686 | ug/kg | 64.4 | | 901 | 69 | 53 --- 140 | | |
| Aroclor-1262 | 12.6 | | BDL | U | 901 | 0 | 70 --- 130 | | |
| Aroclor-1268 | 9.01 | | BDL | U | 901 | 0 | 70 --- 130 | | |
| Surr: 2,4,5,6-TCMX | 111 | % Recovery | | | 100 | 111 | 44 --- 130 | | |
| Surr: DCBP | 91.2 | % Recovery | | | 100 | 91.2 | 54 --- 141 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Lab Control Spike Water

| | | | | | | |
|-------------------|--------|----------------|------------|-----------------|---------|---------|
| Analytical Run #: | 126392 | Analysis Date: | 05/26/2016 | Prep Batch #: | Matrix: | LIQUID |
| CTLab #: | 728898 | Analysis Time: | 10:08 | Prep Date/Time: | Method: | SW8260C |
| Parent Sample #: | | Analyst: | RLD | Prep Analyst: | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|----------------------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| 1,1-Dichloroethene | 1.06 | mg/L | | | 1.00 | 106 | 71 --- 131 | | |
| 1,2-Dichloroethane | 0.935 | mg/L | | | 1.00 | 94 | 73 --- 128 | | |
| 2-Butanone | 9.23 | mg/L | | | 10.0 | 92 | 56 --- 143 | | |
| Benzene | 1.05 | mg/L | | | 1.00 | 105 | 79 --- 120 | | |
| Carbon tetrachloride | 0.996 | mg/L | | | 1.00 | 100 | 72 --- 136 | | |
| Chlorobenzene | 1.02 | mg/L | | | 1.00 | 102 | 82 --- 118 | | |
| Chloroform | 0.962 | mg/L | | | 1.00 | 96 | 79 --- 124 | | |
| Tetrachloroethene | 1.02 | mg/L | | | 1.00 | 102 | 74 --- 129 | | |
| Trichloroethene | 1.01 | mg/L | | | 1.00 | 101 | 79 --- 123 | | |
| Vinyl chloride | 1.03 | mg/L | | | 1.00 | 103 | 58 --- 137 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Method Blank Water

| | | | | | | |
|-------------------|--------|----------------|------------|-----------------|---------|---------|
| Analytical Run #: | 126392 | Analysis Date: | 05/26/2016 | Prep Batch #: | Matrix: | LIQUID |
| CTLab #: | 728900 | Analysis Time: | 10:37 | Prep Date/Time: | Method: | SW8260C |
| Parent Sample #: | | Analyst: | RLD | Prep Analyst: | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|----------------------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| 1,1-Dichloroethene | 0.00024 | mg/L | | U | 0 | | 00025 | | |
| 1,2-Dichloroethane | 0.0003 | mg/L | | U | 0 | | .0005 | | |
| 2-Butanone | 0.0024 | mg/L | | U | 0 | | .0025 | | |
| Benzene | 0.00019 | mg/L | | U | 0 | | 00025 | | |
| Carbon tetrachloride | 0.00023 | mg/L | | U | 0 | | 00025 | | |
| Chlorobenzene | 0.00024 | mg/L | | U | 0 | | 00025 | | |
| Chloroform | 0.00015 | mg/L | | U | 0 | | 00025 | | |
| Tetrachloroethene | 0.0003 | mg/L | | U | 0 | | .0005 | | |
| Trichloroethene | 0.00021 | mg/L | | U | 0 | | 00025 | | |
| Vinyl chloride | 0.00018 | mg/L | | U | 0 | | 00025 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Matrix Spike Duplicate Water

| | | | | | | |
|-------------------|--------|----------------|------------|-----------------|---------|---------|
| Analytical Run #: | 126392 | Analysis Date: | 05/26/2016 | Prep Batch #: | Matrix: | TCLP |
| CTLab #: | 728894 | Analysis Time: | 12:30 | Prep Date/Time: | Method: | SW8260C |
| Parent Sample #: | 728853 | Analyst: | RLD | Prep Analyst: | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|-----------------------|------------------|------------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| 1,1-Dichloroethene | 1.04 | mg/L | BDL | | 1.00 | 104 | 71 --- 131 | 9 | 20 |
| 1,2-Dichloroethane-d4 | 105 | % Recovery | | | 100 | 105 | 81 --- 118 | | |
| 1,2-Dichloroethane | 0.976 | mg/L | BDL | | 1.00 | 98 | 73 --- 128 | 4 | 20 |
| 2-Butanone | 9.59 | mg/L | BDL | | 10.0 | 96 | 56 --- 143 | 4 | 20 |
| Benzene | 1.05 | mg/L | BDL | | 1.00 | 105 | 79 --- 120 | 7 | 20 |
| Bromofluorobenzene | 95.0 | % Recovery | | | 100 | 95.0 | 85 --- 114 | | |
| Carbon tetrachloride | 0.955 | mg/L | BDL | | 1.00 | 96 | 72 --- 136 | 9 | 20 |
| Chlorobenzene | 1.03 | mg/L | BDL | | 1.00 | 103 | 82 --- 118 | 5 | 20 |
| Chloroform | 0.985 | mg/L | BDL | | 1.00 | 98 | 79 --- 124 | 3 | 20 |
| d8-Toluene | 100 | % Recovery | | | 100 | 100 | 89 --- 112 | | |
| Dibromofluoromethane | 100 | % Recovery | | | 100 | 100 | 80 --- 119 | | |
| Tetrachloroethene | 0.988 | mg/L | BDL | | 1.00 | 99 | 74 --- 129 | 5 | 20 |
| Trichloroethene | 1.06 | mg/L | BDL | | 1.00 | 106 | 79 --- 123 | 9 | 20 |
| Vinyl chloride | 0.957 | mg/L | BDL | | 1.00 | 96 | 58 --- 137 | 1 | 20 |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Matrix Spike Water

| | | | | | | |
|-------------------|--------|----------------|------------|-----------------|---------|---------|
| Analytical Run #: | 126392 | Analysis Date: | 05/26/2016 | Prep Batch #: | Matrix: | TCLP |
| CTLab #: | 728853 | Analysis Time: | 12:02 | Prep Date/Time: | Method: | SW8260C |
| Parent Sample #: | 725919 | Analyst: | RLD | Prep Analyst: | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|-----------------------|------------------|------------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| 1,1-Dichloroethene | 0.953 | mg/L | BDL | | 1.00 | 95 | 71 --- 131 | | 20 |
| 1,2-Dichloroethane-d4 | 101 | % Recovery | | | 100 | 101 | 81 --- 118 | | |
| 1,2-Dichloroethane | 0.938 | mg/L | BDL | | 1.00 | 94 | 73 --- 128 | | 20 |
| 2-Butanone | 9.18 | mg/L | BDL | | 10.0 | 92 | 56 --- 143 | | 20 |
| Benzene | 0.975 | mg/L | BDL | | 1.00 | 98 | 79 --- 120 | | 20 |
| Bromofluorobenzene | 95.0 | % Recovery | | | 100 | 95.0 | 85 --- 114 | | |
| Carbon tetrachloride | 0.876 | mg/L | BDL | | 1.00 | 88 | 72 --- 136 | | 20 |
| Chlorobenzene | 0.978 | mg/L | BDL | | 1.00 | 98 | 82 --- 118 | | 20 |
| Chloroform | 0.954 | mg/L | BDL | | 1.00 | 95 | 79 --- 124 | | 20 |
| d8-Toluene | 101 | % Recovery | | | 100 | 101 | 89 --- 112 | | |
| Dibromofluoromethane | 100 | % Recovery | | | 100 | 100 | 80 --- 119 | | |
| Tetrachloroethene | 0.944 | mg/L | BDL | | 1.00 | 94 | 74 --- 129 | | 20 |
| Trichloroethene | 0.965 | mg/L | BDL | | 1.00 | 96 | 79 --- 123 | | 20 |
| Vinyl chloride | 0.949 | mg/L | BDL | | 1.00 | 95 | 58 --- 137 | | 20 |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Lab Control Spike Water

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|------------------|---------|--------|
| Analytical Run #: | 126448 | Analysis Date: | 05/26/2016 | Prep Batch #: | 57362 | Matrix: | LIQUID |
| CTLab #: | 726436 | Analysis Time: | 16:41 | Prep Date/Time: | 05/25/2016 09:00 | Method: | SW8082 |
| Parent Sample #: | | Analyst: | JJY | Prep Analyst: | AJZ | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|--------------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Aroclor-1016 | 4.42 | ug/L | | | 5.00 | 88 | 46 --- 129 | | 30 |
| Aroclor-1260 | 4.11 | ug/L | | | 5.00 | 82 | 45 --- 134 | | 30 |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Method Blank Water

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|------------------|---------|--------|
| Analytical Run #: | 126448 | Analysis Date: | 05/26/2016 | Prep Batch #: | 57362 | Matrix: | LIQUID |
| CTLab #: | 726435 | Analysis Time: | 16:19 | Prep Date/Time: | 05/25/2016 09:00 | Method: | SW8082 |
| Parent Sample #: | | Analyst: | JJY | Prep Analyst: | AJZ | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|--------------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Aroclor-1016 | 0.113 | ug/L | | U | 0 | | 0.50 | | |
| Aroclor-1221 | 0.085 | ug/L | | U | 0 | | 0.50 | | |
| Aroclor-1232 | 0.145 | ug/L | | U | 0 | | 0.50 | | |
| Aroclor-1242 | 0.096 | ug/L | | U | 0 | | 0.50 | | |
| Aroclor-1248 | 0.088 | ug/L | | U | 0 | | 0.50 | | |
| Aroclor-1254 | 0.094 | ug/L | | U | 0 | | 0.50 | | |
| Aroclor-1260 | 0.099 | ug/L | | U | 0 | | 0.50 | | |
| Aroclor-1262 | 0.28 | ug/L | | U | 0 | | 0.50 | | |
| Aroclor-1268 | 0.056 | ug/L | | U | 0 | | 0.50 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Matrix Spike Duplicate Water

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|------------------|---------|--------------|
| Analytical Run #: | 126448 | Analysis Date: | 05/26/2016 | Prep Batch #: | 57362 | Matrix: | GROUND WATER |
| CTLab #: | 726439 | Analysis Time: | 18:07 | Prep Date/Time: | 05/25/2016 09:00 | Method: | SW8082 |
| Parent Sample #: | 726438 | Analyst: | JJY | Prep Analyst: | AJZ | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|--------------------|------------------|------------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Aroclor-1016 | 4.33 | ug/L | BDL | | 5.21 | 83 | 46 --- 129 | 1 | 30 |
| Aroclor-1221 | 0.0885 | | BDL | U | 5.21 | 0 | 70 --- 130 | 0 | 30 |
| Aroclor-1232 | 0.151 | | BDL | U | 5.21 | 0 | 70 --- 130 | 0 | 30 |
| Aroclor-1242 | 0.100 | | BDL | U | 5.21 | 0 | 70 --- 130 | 0 | 30 |
| Aroclor-1248 | 0.0917 | | BDL | U | 5.21 | 0 | 70 --- 130 | 0 | 30 |
| Aroclor-1254 | 0.0979 | | BDL | U | 5.21 | 0 | 34 --- 127 | 0 | 30 |
| Aroclor-1260 | 3.52 | ug/L | BDL | | 5.21 | 68 | 45 --- 134 | 0 | 30 |
| Aroclor-1262 | 0.292 | | BDL | U | 5.21 | 0 | 70 --- 130 | 0 | 30 |
| Aroclor-1268 | 0.0583 | | BDL | U | 5.21 | 0 | 70 --- 130 | 0 | 30 |
| Surr: 2,4,5,6-TCMX | 101 | % Recovery | | | 100 | 101 | 38 --- 137 | | |
| Surr: DCBP | 80.1 | % Recovery | | | 100 | 80.1 | 23 --- 147 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Matrix Spike Water

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|------------------|---------|--------------|
| Analytical Run #: | 126448 | Analysis Date: | 05/26/2016 | Prep Batch #: | 57362 | Matrix: | GROUND WATER |
| CTLab #: | 726438 | Analysis Time: | 17:45 | Prep Date/Time: | 05/25/2016 09:00 | Method: | SW8082 |
| Parent Sample #: | 725920 | Analyst: | JJY | Prep Analyst: | AJZ | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|--------------------|------------------|------------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| Aroclor-1016 | 4.34 | ug/L | BDL | | 5.15 | 84 | 46 --- 129 | | |
| Aroclor-1221 | 0.0876 | | BDL | U | 5.15 | 0 | 70 --- 130 | | |
| Aroclor-1232 | 0.149 | | BDL | U | 5.15 | 0 | 70 --- 130 | | |
| Aroclor-1242 | 0.0990 | | BDL | U | 5.15 | 0 | 70 --- 130 | | |
| Aroclor-1248 | 0.0907 | | BDL | U | 5.15 | 0 | 70 --- 130 | | |
| Aroclor-1254 | 0.0969 | | BDL | U | 5.15 | 0 | 34 --- 127 | | |
| Aroclor-1260 | 3.48 | ug/L | BDL | | 5.15 | 68 | 45 --- 134 | | |
| Aroclor-1262 | 0.289 | | BDL | U | 5.15 | 0 | 70 --- 130 | | |
| Aroclor-1268 | 0.0577 | | BDL | U | 5.15 | 0 | 70 --- 130 | | |
| Surr: 2,4,5,6-TCMX | 101 | % Recovery | | | 100 | 101 | 38 --- 137 | | |
| Surr: DCBP | 80.1 | % Recovery | | | 100 | 80.1 | 23 --- 147 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Lab Control Spike Water

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|------------------|---------|--------|
| Analytical Run #: | 126450 | Analysis Date: | 05/26/2016 | Prep Batch #: | 57418 | Matrix: | LIQUID |
| CTLab #: | 727672 | Analysis Time: | 15:57 | Prep Date/Time: | 05/25/2016 09:00 | Method: | SW8081 |
| Parent Sample #: | | Analyst: | JJY | Prep Analyst: | AJZ | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|-----------------------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| alpha-Chlordane | 0.000463 | mg/L | | | 0.000400 | 116 | 65 --- 125 | | 30 |
| Chlordane (Technical) | 0.00259 | mg/L | | | 0.00250 | 104 | 50 --- 150 | | 30 |
| Endrin | 0.000529 | mg/L | | | 0.000400 | 132 | 55 --- 135 | | 30 |
| gamma-Chlordane | 0.000464 | mg/L | | | 0.000400 | 116 | 60 --- 125 | | 30 |
| Heptachlor | 0.000480 | mg/L | | | 0.000400 | 120 | 40 --- 130 | | 30 |
| Heptachlor epoxide | 0.000458 | mg/L | | | 0.000400 | 114 | 60 --- 130 | | 30 |
| Lindane | 0.000453 | mg/L | | | 0.000400 | 113 | 25 --- 135 | | 30 |
| Methoxychlor | 0.000536 | mg/L | | | 0.000400 | 134 | 55 --- 150 | | 30 |
| Toxaphene | 0.00233 | mg/L | | | 0.00250 | 93 | 50 --- 150 | | 30 |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Method Blank Water

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|------------------|---------|--------|
| Analytical Run #: | 126450 | Analysis Date: | 05/26/2016 | Prep Batch #: | 57418 | Matrix: | LIQUID |
| CTLab #: | 727671 | Analysis Time: | 15:41 | Prep Date/Time: | 05/25/2016 09:00 | Method: | SW8081 |
| Parent Sample #: | | Analyst: | JJY | Prep Analyst: | AJZ | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|-----------------------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| alpha-Chlordane | 0.000009 | mg/L | | U | 0 | | 00020 | | |
| Chlordane (Technical) | 0.000102 | mg/L | | U | 0 | | 00025 | | |
| Endrin | 0.000006 | mg/L | | U | 0 | | 00012 | | |
| gamma-Chlordane | 0.000007 | mg/L | | U | 0 | | 00020 | | |
| Heptachlor | 0.000006 | mg/L | | U | 0 | | 00012 | | |
| Heptachlor epoxide | 0.000007 | mg/L | | U | 0 | | 00012 | | |
| Lindane | 0.000007 | mg/L | | U | 0 | | 00012 | | |
| Methoxychlor | 0.000006 | mg/L | | U | 0 | | 00020 | | |
| Toxaphene | 0.000176 | mg/L | | U | 0 | | 00025 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Matrix Spike Water

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|------------------|---------|--------|
| Analytical Run #: | 126450 | Analysis Date: | 05/26/2016 | Prep Batch #: | 57418 | Matrix: | TCLP |
| CTLab #: | 727674 | Analysis Time: | 17:03 | Prep Date/Time: | 05/25/2016 09:00 | Method: | SW8081 |
| Parent Sample #: | 725919 | Analyst: | JJY | Prep Analyst: | AJZ | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|---------------------------|------------------|------------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| alpha-Chlordane | 0.00440 | mg/L | BDL | | 0.00400 | 110 | 65 --- 125 | | |
| Chlordane (Technical) | 0.00102 | mg/L | BDL | U | 0.0500 | 0 | 50 --- 150 | | |
| Endrin | 0.00518 | mg/L | BDL | | 0.00400 | 130 | 55 --- 135 | | |
| gamma-Chlordane | 0.00445 | mg/L | BDL | | 0.00400 | 111 | 60 --- 125 | | |
| Heptachlor | 0.00455 | mg/L | BDL | | 0.00400 | 114 | 40 --- 130 | | |
| Heptachlor epoxide | 0.00431 | mg/L | BDL | | 0.00400 | 108 | 60 --- 130 | | |
| Lindane | 0.00432 | mg/L | BDL | | 0.00400 | 108 | 25 --- 135 | | |
| Methoxychlor | 0.00516 | mg/L | BDL | | 0.00400 | 129 | 55 --- 150 | | |
| SURR:2,4,5,6-CL4-m-xylene | 92.8 | % Recovery | | | 100 | 92.8 | 25 --- 140 | | |
| SURR:Decachlorobiphenyl | 106 | % Recovery | | | 100 | 106 | 30 --- 135 | | |
| Toxaphene | 0.00176 | mg/L | BDL | U | 0.0500 | 0 | 50 --- 150 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Lab Control Spike Water

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|------------------|---------|---------|
| Analytical Run #: | 126456 | Analysis Date: | 06/01/2016 | Prep Batch #: | 57390 | Matrix: | LIQUID |
| CTLab #: | 726968 | Analysis Time: | 15:42 | Prep Date/Time: | 05/23/2016 08:00 | Method: | SW8330B |
| Parent Sample #: | | Analyst: | RED | Prep Analyst: | SRT | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|----------------------------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| 1,3,5-Trinitrobenzene | 1.73 | ug/L | | | 2.00 | 86 | 73 --- 125 | | 20 |
| 1,3-Dinitrobenzene | 1.93 | ug/L | | | 2.00 | 96 | 78 --- 120 | | 20 |
| 2,4,6-Trinitrotoluene | 1.94 | ug/L | | | 2.00 | 97 | 71 --- 123 | | 20 |
| 2,4-Dinitrotoluene | 1.74 | ug/L | | | 2.00 | 87 | 78 --- 120 | | 20 |
| 2,6-Dinitrotoluene | 2.11 | ug/L | | | 2.00 | 106 | 77 --- 127 | | 20 |
| 2-Amino-4,6-dinitrotoluene | 1.79 | ug/L | | | 2.00 | 90 | 79 --- 120 | | 20 |
| 2-Nitrotoluene | 1.69 | ug/L | | | 2.00 | 84 | 70 --- 127 | | 20 |
| 3,5-Dinitroaniline | 1.92 | ug/L | | | 2.00 | 96 | 71 --- 117 | | 20 |
| 3-Nitrotoluene | 1.81 | ug/L | | | 2.00 | 90 | 73 --- 125 | | 20 |
| 4-Amino-2,6-dinitrotoluene | 1.96 | ug/L | | | 2.00 | 98 | 76 --- 125 | | 20 |
| 4-Nitrotoluene | 1.78 | ug/L | | | 2.00 | 89 | 71 --- 127 | | 20 |
| HMX | 1.89 | ug/L | | | 2.00 | 94 | 65 --- 135 | | 20 |
| Nitrobenzene | 1.56 | ug/L | | | 2.00 | 78 | 65 --- 134 | | 20 |
| Nitroglycerin | 4.08 | ug/L | | | 4.00 | 102 | 74 --- 127 | | 20 |
| PETN | 4.31 | ug/L | | | 4.00 | 108 | 73 --- 127 | | 20 |
| RDX | 1.89 | ug/L | | | 2.00 | 94 | 68 --- 130 | | 20 |
| Tetryl | 1.96 | ug/L | | | 2.00 | 98 | 64 --- 128 | | 20 |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Method Blank Water

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|------------------|---------|---------|
| Analytical Run #: | 126456 | Analysis Date: | 06/01/2016 | Prep Batch #: | 57390 | Matrix: | LIQUID |
| CTLab #: | 726967 | Analysis Time: | 15:23 | Prep Date/Time: | 05/23/2016 08:00 | Method: | SW8330B |
| Parent Sample #: | | Analyst: | RED | Prep Analyst: | SRT | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|----------------------------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| 1,3,5-Trinitrobenzene | 0.019 | ug/L | | U | 0 | | 0.040 | | |
| 1,3-Dinitrobenzene | 0.015 | ug/L | | U | 0 | | 0.040 | | |
| 2,4,6-Trinitrotoluene | 0.026 | ug/L | | U | 0 | | 0.080 | | |
| 2,4-Dinitrotoluene | 0.011 | ug/L | | U | 0 | | 0.020 | | |
| 2,6-Dinitrotoluene | 0.011 | ug/L | | U | 0 | | 0.020 | | |
| 2-Amino-4,6-dinitrotoluene | 0.014 | ug/L | | U | 0 | | 0.040 | | |
| 2-Nitrotoluene | 0.025 | ug/L | | U | 0 | | 0.080 | | |
| 3,5-Dinitroaniline | 0.017 | ug/L | | U | 0 | | 0.040 | | |
| 3-Nitrotoluene | 0.012 | ug/L | | U | 0 | | 0.020 | | |
| 4-Amino-2,6-dinitrotoluene | 0.016 | ug/L | | U | 0 | | 0.040 | | |
| 4-Nitrotoluene | 0.021 | ug/L | | U | 0 | | 0.040 | | |
| HMX | 0.020 | ug/L | | U | 0 | | 0.040 | | |
| Nitrobenzene | 0.019 | ug/L | | U | 0 | | 0.040 | | |
| Nitroglycerin | 0.05 | ug/L | | U | 0 | | 0.16 | | |
| PETN | 0.07 | ug/L | | U | 0 | | 0.16 | | |
| RDX | 0.017 | ug/L | | U | 0 | | 0.040 | | |
| Tetryl | 0.025 | ug/L | | U | 0 | | 0.080 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Lab Control Spike Water

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|------------------|---------|--------|
| Analytical Run #: | 126465 | Analysis Date: | 05/26/2016 | Prep Batch #: | 57419 | Matrix: | LIQUID |
| CTLab #: | 727676 | Analysis Time: | 14:31 | Prep Date/Time: | 05/25/2016 00:00 | Method: | SW8270 |
| Parent Sample #: | | Analyst: | RPN | Prep Analyst: | AJZ | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|-----------------------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| 1,4-Dichlorobenzene | 0.0149 | mg/L | | | 0.0200 | 74 | 29 --- 112 | | 20 |
| 2,4,5-Trichlorophenol | 0.0174 | mg/L | | | 0.0200 | 87 | 53 --- 123 | | 20 |
| 2,4,6-Trichlorophenol | 0.0175 | mg/L | | | 0.0200 | 88 | 50 --- 125 | | 20 |
| 2,4-Dinitrotoluene | 0.0184 | mg/L | | | 0.0200 | 92 | 57 --- 128 | | 20 |
| 2-Methylphenol | 0.0145 | mg/L | | | 0.0200 | 72 | 30 --- 117 | | 20 |
| 3 & 4-Methylphenol | 0.0142 | mg/L | | | 0.0200 | 71 | 29 --- 110 | | 20 |
| Hexachlorobenzene | 0.0179 | mg/L | | | 0.0200 | 90 | 53 --- 125 | | 20 |
| Hexachlorobutadiene | 0.0151 | mg/L | | | 0.0200 | 76 | 22 --- 124 | | 20 |
| Hexachloroethane | 0.0145 | mg/L | | | 0.0200 | 72 | 21 --- 115 | | 20 |
| Nitrobenzene | 0.0154 | mg/L | | | 0.0200 | 77 | 45 --- 121 | | 20 |
| Pentachlorophenol | 0.0192 | mg/L | | | 0.0200 | 96 | 35 --- 138 | | 20 |
| Pyridine | 0.00852 | mg/L | | | 0.0200 | 43 | 0 --- 106 | | 20 |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Method Blank Water

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|------------------|---------|--------|
| Analytical Run #: | 126465 | Analysis Date: | 05/26/2016 | Prep Batch #: | 57419 | Matrix: | LIQUID |
| CTLab #: | 727675 | Analysis Time: | 13:51 | Prep Date/Time: | 05/25/2016 00:00 | Method: | SW8270 |
| Parent Sample #: | | Analyst: | RPN | Prep Analyst: | AJZ | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|-----------------------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| 1,4-Dichlorobenzene | 0.00019 | mg/L | | U | 0 | | 00050 | | |
| 2,4,5-Trichlorophenol | 0.0011 | mg/L | | U | 0 | | .0025 | | |
| 2,4,6-Trichlorophenol | 0.0010 | mg/L | | U | 0 | | .0025 | | |
| 2,4-Dinitrotoluene | 0.00021 | mg/L | | U | 0 | | 00050 | | |
| 2-Methylphenol | 0.00086 | mg/L | | U | 0 | | 02500 | | |
| 3 & 4-Methylphenol | 0.0014 | mg/L | | U | 0 | | .0045 | | |
| Hexachlorobenzene | 0.00027 | mg/L | | U | 0 | | 00050 | | |
| Hexachlorobutadiene | 0.00018 | mg/L | | U | 0 | | 00050 | | |
| Hexachloroethane | 0.00022 | mg/L | | U | 0 | | 00050 | | |
| Nitrobenzene | 0.00016 | mg/L | | U | 0 | | 00050 | | |
| Pentachlorophenol | 0.0011 | mg/L | | U | 0 | | .0025 | | |
| Pyridine | 0.00062 | mg/L | | U | 0 | | 00200 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Matrix Spike Water

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|------------------|---------|--------|
| Analytical Run #: | 126465 | Analysis Date: | 05/26/2016 | Prep Batch #: | 57419 | Matrix: | TCLP |
| CTLab #: | 727678 | Analysis Time: | 15:31 | Prep Date/Time: | 05/25/2016 00:00 | Method: | SW8270 |
| Parent Sample #: | 725919 | Analyst: | RPN | Prep Analyst: | AJZ | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|----------------------------|------------------|------------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| 1,4-Dichlorobenzene | 0.133 | mg/L | BDL | | 0.200 | 66 | 29 --- 112 | | |
| 2,4,5-Trichlorophenol | 0.172 | mg/L | BDL | | 0.200 | 86 | 53 --- 123 | | |
| 2,4,6-Trichlorophenol | 0.169 | mg/L | BDL | | 0.200 | 84 | 50 --- 125 | | |
| 2,4-Dinitrotoluene | 0.184 | mg/L | BDL | | 0.200 | 92 | 57 --- 128 | | |
| 2-Methylphenol | 0.137 | mg/L | BDL | | 0.200 | 68 | 30 --- 117 | | |
| 3 & 4-Methylphenol | 0.131 | mg/L | BDL | | 0.200 | 66 | 29 --- 110 | | |
| Hexachlorobenzene | 0.179 | mg/L | BDL | | 0.200 | 90 | 53 --- 125 | | |
| Hexachlorobutadiene | 0.145 | mg/L | BDL | | 0.200 | 72 | 22 --- 124 | | |
| Hexachloroethane | 0.132 | mg/L | BDL | | 0.200 | 66 | 21 --- 115 | | |
| Nitrobenzene | 0.147 | mg/L | BDL | | 0.200 | 74 | 45 --- 121 | | |
| Pentachlorophenol | 0.206 | mg/L | BDL | | 0.200 | 103 | 35 --- 138 | | |
| Pyridine | 0.0209 | mg/L | BDL | | 0.200 | 10 | 0 --- 106 | | |
| Surr: 2,4,6-Tribromophenol | 92.9 | % Recovery | | | 100 | 92.9 | 43 --- 140 | | |
| Surr: 2-Fluorobiphenyl | 77.6 | % Recovery | | | 100 | 77.6 | 44 --- 119 | | |
| Surr: 2-Fluorophenol | 44.7 | % Recovery | | | 100 | 44.7 | 19 --- 119 | | |
| Surr: Nitrobenzene-d5 | 73.7 | % Recovery | | | 100 | 73.7 | 44 --- 120 | | |
| Surr: Phenol-d5 | 33.5 | % Recovery | | | 100 | 33.5 | 1 --- 114 | | |
| Surr: Terphenyl-d14 | 93.1 | % Recovery | | | 100 | 93.1 | 50 --- 134 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Lab Control Spike Soil

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|------------------|---------|---------|
| Analytical Run #: | 126534 | Analysis Date: | 06/02/2016 | Prep Batch #: | 57393 | Matrix: | SOLID |
| CTLab #: | 726976 | Analysis Time: | 13:37 | Prep Date/Time: | 05/26/2016 11:30 | Method: | SW8330B |
| Parent Sample #: | | Analyst: | RED | Prep Analyst: | RED | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|----------------------------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| 1,3,5-Trinitrobenzene | 1.89 | mg/kg | | | 2.00 | 94 | 80 --- 116 | | |
| 1,3-Dinitrobenzene | 2.04 | mg/kg | | | 2.00 | 102 | 74 --- 120 | | |
| 2,4,6-Trinitrotoluene | 2.07 | mg/kg | | | 2.00 | 104 | 71 --- 120 | | |
| 2,4-Dinitrotoluene | 1.76 | mg/kg | | | 2.00 | 88 | 75 --- 121 | | |
| 2,6-Dinitrotoluene | 2.30 | mg/kg | | | 2.00 | 115 | 79 --- 117 | | |
| 2-Amino-4,6-dinitrotoluene | 1.86 | mg/kg | | | 2.00 | 93 | 71 --- 123 | | |
| 2-Nitrotoluene | 1.95 | mg/kg | | | 2.00 | 98 | 70 --- 124 | | |
| 3,5-Dinitroaniline | 2.07 | mg/kg | | | 2.00 | 104 | 86 --- 118 | | |
| 3-Nitrotoluene | 2.01 | mg/kg | | | 2.00 | 100 | 67 --- 129 | | |
| 4-Amino-2,6-dinitrotoluene | 2.05 | mg/kg | | | 2.00 | 102 | 64 --- 127 | | |
| 4-Nitrotoluene | 1.99 | mg/kg | | | 2.00 | 100 | 71 --- 124 | | |
| HMX | 2.00 | mg/kg | | | 2.00 | 100 | 74 --- 124 | | |
| Nitrobenzene | 1.66 | mg/kg | | | 2.00 | 83 | 67 --- 129 | | |
| Nitroglycerin | 4.26 | mg/kg | | | 4.00 | 106 | 73 --- 124 | | |
| PETN | 4.38 | mg/kg | | | 4.00 | 110 | 72 --- 128 | | |
| RDX | 1.95 | mg/kg | | | 2.00 | 98 | 67 --- 129 | | |
| Tetryl | 2.10 | mg/kg | | | 2.00 | 105 | 68 --- 135 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Method Blank Soil

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|-----------------|---------|---------|
| Analytical Run #: | 126534 | Analysis Date: | 06/02/2016 | Prep Batch #: | 57393 | Matrix: | SOLID |
| CTLab #: | 726975 | Analysis Time: | 13:18 | Prep Date/Time: | 05/26/2016 1:30 | Method: | SW8330B |
| Parent Sample #: | | Analyst: | RED | Prep Analyst: | RED | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|----------------------------|------------------|-------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| 1,3,5-Trinitrobenzene | 0.13 | mg/kg | | U | 0 | | 0.25 | | |
| 1,3-Dinitrobenzene | 0.08 | mg/kg | | U | 0 | | 0.15 | | |
| 2,4,6-Trinitrotoluene | 0.09 | mg/kg | | U | 0 | | 0.25 | | |
| 2,4-Dinitrotoluene | 0.08 | mg/kg | | U | 0 | | 0.15 | | |
| 2,6-Dinitrotoluene | 0.07 | mg/kg | | U | 0 | | 0.15 | | |
| 2-Amino-4,6-dinitrotoluene | 0.09 | mg/kg | | U | 0 | | 0.15 | | |
| 2-Nitrotoluene | 0.09 | mg/kg | | U | 0 | | 0.15 | | |
| 3,5-Dinitroaniline | 0.09 | mg/kg | | U | 0 | | 0.30 | | |
| 3-Nitrotoluene | 0.11 | mg/kg | | U | 0 | | 0.25 | | |
| 4-Amino-2,6-dinitrotoluene | 0.08 | mg/kg | | U | 0 | | 0.15 | | |
| 4-Nitrotoluene | 0.10 | mg/kg | | U | 0 | | 0.25 | | |
| HMX | 0.12 | mg/kg | | U | 0 | | 0.25 | | |
| Nitrobenzene | 0.10 | mg/kg | | U | 0 | | 0.25 | | |
| Nitroglycerin | 0.5 | mg/kg | | U | 0 | | 1.0 | | |
| PETN | 0.6 | mg/kg | | U | 0 | | 1.0 | | |
| RDX | 0.14 | mg/kg | | U | 0 | | 0.25 | | |
| Tetryl | 0.09 | mg/kg | | U | 0 | | 0.25 | | |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Matrix Spike Duplicate Soil

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|-----------------|---------|---------|
| Analytical Run #: | 126534 | Analysis Date: | 06/02/2016 | Prep Batch #: | 57393 | Matrix: | SOIL |
| CTLab #: | 726978 | Analysis Time: | 15:23 | Prep Date/Time: | 05/26/2016 1:30 | Method: | SW8330B |
| Parent Sample #: | 726977 | Analyst: | RED | Prep Analyst: | RED | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|----------------------------|------------------|------------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| 1,2-Dinitrobenzene | 106 | % Recovery | | | 100 | 106 | 78 --- 119 | | |
| 1,3,5-Trinitrobenzene | 1.55 | mg/kg | BDL | | 2.00 | 78 | 80 --- 116 | 3 | 20 |
| 1,3-Dinitrobenzene | 1.82 | mg/kg | BDL | | 2.00 | 91 | 73 --- 119 | 0 | 20 |
| 2,4,6-Trinitrotoluene | 1.83 | mg/kg | BDL | | 2.00 | 92 | 71 --- 120 | 4 | 20 |
| 2,4-Dinitrotoluene | 1.59 | mg/kg | BDL | | 2.00 | 80 | 75 --- 121 | 5 | 20 |
| 2,6-Dinitrotoluene | 2.12 | mg/kg | BDL | | 2.00 | 106 | 79 --- 117 | 10 | 20 |
| 2-Amino-4,6-dinitrotoluene | 1.61 | mg/kg | BDL | | 2.00 | 80 | 71 --- 123 | 5 | 20 |
| 2-Nitrotoluene | 1.76 | mg/kg | BDL | | 2.00 | 88 | 70 --- 124 | 4 | 20 |
| 3,5-Dinitroaniline | 1.72 | mg/kg | BDL | | 2.00 | 86 | 86 --- 118 | 0 | 20 |
| 3-Nitrotoluene | 1.77 | mg/kg | BDL | | 2.00 | 88 | 67 --- 129 | 3 | 20 |
| 4-Amino-2,6-dinitrotoluene | 1.72 | mg/kg | BDL | | 2.00 | 86 | 64 --- 127 | 3 | 20 |
| 4-Nitrotoluene | 1.86 | mg/kg | BDL | | 2.00 | 93 | 71 --- 124 | 2 | 20 |
| HMX | 2.00 | mg/kg | BDL | | 2.00 | 100 | 74 --- 124 | 2 | 20 |
| Nitrobenzene | 1.48 | mg/kg | BDL | | 2.00 | 74 | 67 --- 129 | 0 | 20 |
| Nitroglycerin | 3.85 | mg/kg | BDL | | 4.00 | 96 | 73 --- 124 | 6 | 20 |
| PETN | 3.54 | mg/kg | BDL | | 4.00 | 88 | 72 --- 128 | 1 | 20 |
| RDX | 1.57 | mg/kg | BDL | | 2.00 | 78 | 67 --- 129 | 3 | 20 |
| Tetryl | 1.60 | mg/kg | BDL | | 2.00 | 80 | 68 --- 135 | 4 | 20 |

LEIDOS

Project Name: FW SEWERS EE/CA (LL2)

SDG #: 119145

Folder #: 119145

Project Number:

Matrix Spike Soil

| | | | | | | | |
|-------------------|--------|----------------|------------|-----------------|-----------------|---------|---------|
| Analytical Run #: | 126534 | Analysis Date: | 06/02/2016 | Prep Batch #: | 57393 | Matrix: | SOIL |
| CTLab #: | 726977 | Analysis Time: | 14:50 | Prep Date/Time: | 05/26/2016 1:30 | Method: | SW8330B |
| Parent Sample #: | 725918 | Analyst: | RED | Prep Analyst: | RED | | |

| Analyte | QC sample result | Units | Parent sample result | Qualifier(s) | Spike Amount Added | % Recovery | Control Limits | RPD | RPD Limit |
|----------------------------|------------------|------------|----------------------|--------------|--------------------|------------|----------------|-----|-----------|
| 1,2-Dinitrobenzene | 108 | % Recovery | | | 100 | 108 | 78 --- 119 | | |
| 1,3,5-Trinitrobenzene | 1.50 | mg/kg | BDL | | 1.98 | 76 | 80 --- 116 | | |
| 1,3-Dinitrobenzene | 1.82 | mg/kg | BDL | | 1.98 | 92 | 73 --- 119 | | |
| 2,4,6-Trinitrotoluene | 1.74 | mg/kg | BDL | | 1.98 | 88 | 71 --- 120 | | |
| 2,4-Dinitrotoluene | 1.50 | mg/kg | BDL | | 1.98 | 76 | 75 --- 121 | | |
| 2,6-Dinitrotoluene | 1.91 | mg/kg | BDL | | 1.98 | 96 | 79 --- 117 | | |
| 2-Amino-4,6-dinitrotoluene | 1.52 | mg/kg | BDL | | 1.98 | 77 | 71 --- 123 | | |
| 2-Nitrotoluene | 1.68 | mg/kg | BDL | | 1.98 | 85 | 70 --- 124 | | |
| 3,5-Dinitroaniline | 1.71 | mg/kg | BDL | | 1.98 | 86 | 86 --- 118 | | |
| 3-Nitrotoluene | 1.71 | mg/kg | BDL | | 1.98 | 86 | 67 --- 129 | | |
| 4-Amino-2,6-dinitrotoluene | 1.65 | mg/kg | BDL | | 1.98 | 83 | 64 --- 127 | | |
| 4-Nitrotoluene | 1.89 | mg/kg | BDL | | 1.98 | 95 | 71 --- 124 | | |
| HMX | 1.94 | mg/kg | BDL | | 1.98 | 98 | 74 --- 124 | | |
| Nitrobenzene | 1.48 | mg/kg | BDL | | 1.98 | 75 | 67 --- 129 | | |
| Nitroglycerin | 3.59 | mg/kg | BDL | | 3.97 | 90 | 73 --- 124 | | |
| PETN | 3.48 | mg/kg | BDL | | 3.97 | 88 | 72 --- 128 | | |
| RDX | 1.51 | mg/kg | BDL | | 1.98 | 76 | 67 --- 129 | | |
| Tetryl | 1.66 | mg/kg | BDL | | 1.98 | 84 | 68 --- 135 | | |

Sample Condition Report

| | |
|-------------------------------|--|
| Folder #: 119145 | Print Date / Time: 05/19/2016 15:17 |
| Client: LEIDOS | Received Date / Time / By: 05/19/2016 1043 CHB |
| Project Name: RVAAP | Log-In Date / Time / By: 05/19/2016 1445 BNA |
| Project Phase: | Project #: PM: ETK |
| Coolers: 3221 | Temperature: 1.8 C On Ice: Y |
| Custody Seals Present : Y | COC Present?: Y Complete? Y |
| Seal Intact? Y | Numbers: SIGNED AND DATED |
| Ship Method: UPS NEXT DAY AIR | Tracking Number: 1Z76449F0191192253 |
| Adequate Packaging: Y | Temp Blank Enclosed? Y |

Notes: SAMPLES RECEIVED IN GOOD CONDITION INTACT ON ICE WITH CUSTODY SEALS SIGNED AND DATED

| Sample ID / Description | Container Type | Cond. Code | pH OK?/Filtered? | Tests |
|---------------------------------|--------------------------------------|------------|--------------------------|----------------|
| 725918 PBA13-IDW-2541-WS | SOLIDS | 1 | / | %SOL,pH,FLASH |
| | Total # of Containers of Type | | (SOLIDS) = 1 | |
| 725918 PBA13-IDW-2541-WS | UNPRES GL | 1 | / | PCB |
| | Total # of Containers of Type | | (UNPRES GL) = 1 | |
| Sample ID / Description | Container Type | Cond. Code | pH OK?/Filtered? | Tests |
| 725919 PBA13-IDW-2541-WS | AMBER GL | 1 | / | 8270,PEST,HERB |
| | Total # of Containers of Type | | (AMBER GL) = 1 | |
| 725919 PBA13-IDW-2541-WS | SOLIDS | 1 | / | HG,ICP |
| | Total # of Containers of Type | | (SOLIDS) = 1 | |
| 725919 PBA13-IDW-2541-WS | JAR GL | 1 | / | VOC |
| | Total # of Containers of Type | | (JAR GL) = 1 | |
| Sample ID / Description | Container Type | Cond. Code | pH OK?/Filtered? | Tests |
| 725920 PBA13-IDW-2542-WW | NAOH PL | 1 | / | CYN |
| | Total # of Containers of Type | | (NAOH PL) = 1 | |
| 725920 PBA13-IDW-2542-WW | AMBER GL | 1 | / | EXPL,PCB |
| | AMBER GL | 1 | / | EXPL,PCB |

| | | | |
|--------------------------------------|-------------------------|---|----------|
| AMBER GL | 1 | / | EXPL,PCB |
| AMBER GL | 1 | / | EXPL,PCB |
| AMBER GL | 1 | / | EXPL,PCB |
| AMBER GL | 1 | / | EXPL,PCB |
| AMBER GL | 1 | / | EXPL,PCB |
| Total # of Containers of Type | (AMBER GL) = 7 | | |

| | | | | | |
|---------------|-------------------|--------------------------------------|--------------------------|---|----------|
| 725920 | PBA13-IDW-2542-WW | UNPRES PL | 1 | / | FLASH,pH |
| | | Total # of Containers of Type | (UNPRES PL) = 1 | | |

| | | | | | |
|---------------|-------------------|--------------------------------------|----------------------------|---|------|
| 725920 | PBA13-IDW-2542-WW | NAOH W/ZNAC | 1 | / | SLFD |
| | | Total # of Containers of Type | (NAOH W/ZNAC) = 1 | | |

| Sample ID / Description | Container Type | Cond. Code | pH OK?/Filtered? | Tests | |
|-------------------------|-------------------|--------------------------------------|-------------------------|-------|----------------|
| 725921 | PBA13-IDW-2542-WW | AMBER GL | 1 | / | 8270,PEST,HERB |
| | | AMBER GL | 1 | / | 8270,PEST,HERB |
| | | AMBER GL | 1 | / | 8270,PEST,HERB |
| | | AMBER GL | 1 | / | 8270,PEST,HERB |
| | | AMBER GL | 1 | / | 8270,PEST,HERB |
| | | AMBER GL | 1 | / | 8270,PEST,HERB |
| | | Total # of Containers of Type | (AMBER GL) = 6 | | |

| | | | | | |
|---------------|-------------------|--------------------------------------|---------------------|---|--------|
| 725921 | PBA13-IDW-2542-WW | HNO3 | 1 | / | HG,ICP |
| | | Total # of Containers of Type | (HNO3) = 1 | | |

| | | | | | |
|---------------|-------------------|--------------------------------------|--------------------|---|-----|
| 725921 | PBA13-IDW-2542-WW | VOA | 1 | / | VOC |
| | | VOA | 1 | / | VOC |
| | | VOA | 1 | / | VOC |
| | | Total # of Containers of Type | (VOA) = 3 | | |

| | |
|-----------------------|------------------------------|
| <u>Condition Code</u> | <u>Condition Description</u> |
| 1 | Sample Received OK |

Present YES NO
Temperature 1.8

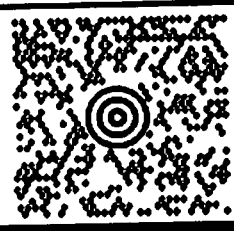


Cooler Receipt Form

Gun # 10

als CHB

e 5/19/16 Time 10:43

oler #: 3221

| | | |
|--|--|----------|
| HEATHER ADAMS 330.5738571 LEIDOS 8866 COMMONS BLVD TWINSBURG OH 44087 | 50 LBS | 1 OF 1 |
| SHIP TO: ERIC KORTHALS 608-356-2760 CT LABS 1230 LANGE COURT BARABOO WI 53913-3109 | | |
|  | WI 539 0-10  | |
| UPS NEXT DAY AIR | | 1 |
| TRACKING #: 1Z 764 49F 01 9119 2253 | | |
|  | | |

CUSTODY SEAL
DATE: 5/18/16
SIGNATURE: [Signature]

QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900

CUSTODY SEAL
DATE: 5/18/16
SIGNATURE: [Signature]

QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900

WASTE PROFILE FORMS

WASTE PROFILE FORM

For assistance in completing this document or for additional information on service offerings, please visit our website at www.usecology.com, or call 800-592-5489.

US Ecology will choose the appropriate facility and method of waste management for your waste from the technologies offered at each operation.

If you wish to direct this waste to a specific facility(s) or treatment technology please indicate here:

Waste Common Name: IDW Soil cuttings

Section 1 – Generator & Customer Information

Generator EPA ID # OH5210020736

NAICS/SIC Code

Generator Former Ravenna Army Ammunition Plant

Facility Address 8451 State Route 5

City Ravenna **State** Ohio **Zip** 44266

24-hour Emergency Response Number

1-800-275-6629

Mailing Address 1438 State Route 534 SW

City Newton Falls **State** Ohio **Zip** 44444

Generator Contact Katie Tait

Title Environmental Specialist 2

Phone 614-336-6136 **Fax**

E-mail kathryn.s.tait.nfg@mail.mil

Internal Use Only: EQ Division

EQ Customer No.

Invoicing Company

Address

City **State** **Zip**

Country

Invoicing Contact

Phone **Fax**

Technical Contact

Phone **Fax**

Cell Phone

E-mail

Section 2 – Shipping & Packaging Information

2.1) Shipping Volume & Frequency:

a) Volume of Waste to be Shipped: 55 gallon drum

b) Frequency: One time Month Year Other:

2.2) DOT Information

a) Is this a U.S. Department of Transportation (USDOT) Hazardous Material? Yes No

b) If "Yes", indicate the proper shipping name per 49CFR 172.101 Hazardous Materials Table:

Section 3 – Special Properties

3.1) Color brown

3.2) Odor None Ammonia Amines Mercaptans Sulfur Organic Acid Amines/Ammonia
 Other:

3.3) Consistency at 70°F: Solid Dust/Powder Debris Sludge Liquid Gas/Aerosol Varies

3.4) What is the pH? ≤2 2.1-4.9 5 – 10 10.1 – 12.4 ≥12.5 N/A

3.5) What is the flash point? <90°F 90-139°F 140-199°F >200°F N/A

3.6) Does this waste exhibit any of the following properties? (check all that apply)

- | | | | | |
|--|---|--|---|--------------------------------------|
| <input checked="" type="checkbox"/> None | <input type="checkbox"/> Free Liquids | <input type="checkbox"/> Metal Fines | <input type="checkbox"/> Water Reactive | <input type="checkbox"/> Biohazard |
| <input type="checkbox"/> Shock Sensitive | <input type="checkbox"/> Oily Residue | <input type="checkbox"/> Dioxins | <input type="checkbox"/> Furans | <input type="checkbox"/> Aluminum |
| <input type="checkbox"/> Asbestos – non-friable | <input type="checkbox"/> Asbestos – friable | <input type="checkbox"/> Other Radioactive | <input type="checkbox"/> Air Reactive | <input type="checkbox"/> Isocyanates |
| <input type="checkbox"/> Biodegradable Sorbents | <input type="checkbox"/> Pyrophoric | <input type="checkbox"/> Reactive Sulfide | <input type="checkbox"/> Reactive Cyanide | <input type="checkbox"/> Explosives |
| <input type="checkbox"/> Temperature Controlled Organic Peroxide | <input type="checkbox"/> NORM | <input type="checkbox"/> TENORM | | |

Section 4 – Composition and Generating Process

4.1) Provide a physical and chemical composition of the waste (e.g. soil, water, PPE, debris, etc.). List the percent ranges of the material, either estimated or known.

soil 0 to 100 % to %
to % to %
to % to %

4.2) Provide a description of the generating process. *Remediation & IDW Sites: please provide a site history.*
The facility, previously known as RVAAP, was formerly used as a load, assemble, and pack facility for munitions production. The soil cuttings were generated from sampling during an environmental investigation.

4.3) Are there any known previous handling or treatment issues involving this waste? Yes* No
*If yes, describe:

Section 5 – Hazardous Wastes

As determined by 40 CFR, Part 261 and State Rules:

Please list applicable waste code(s):

- 5.1) Is this waste exempted from RCRA? Yes, please provide exemption: No
- 5.2) Is this an EPA RCRA listed hazardous waste (F, K, P or U)? Yes: No
a) For F006–F009, F012, does this come from a generator that conducts a cyanide plating process? Yes No
- 5.3) Is this an EPA RCRA characteristic hazardous waste (D001-D043)? Yes: No
- 5.4) Do any State Specific Hazardous Waste Codes apply? Yes: No

If you answered 'no' to 5.2, 5.3 and 5.4, please proceed to Section 6.

- 5.5) EPA Source Code: _____ EPA Form Code: _____
- 5.6) Waste Code Determination Is Based On: Generator Knowledge Analysis MSDS
Analysis and/or MSDS may be required for review and approval for hazardous and non-hazardous waste streams.
- 5.7) Does this waste exceed Land Disposal Restriction levels? Yes No
a) Is this stream a wastewater (WW) or non-wastewater (NWW)? WW NWW
b) If this waste stream is greater than 50% soil, does it meet the alternative soil treatment standards of 40CFR 268.49? Yes No
c) Does this waste contain greater than 50% debris, by volume? Yes No
(Debris is greater than 2.5 inches in size.)
d) If the debris is larger than 3 ft x 3 ft x 3 ft, please provide the approximate dimensions and weight:
- 5.8) If this is a characteristic hazardous waste, does it contain Underlying Hazardous Constituents? Yes* No

*If Yes, please list:

For a complete list of UHC constituents, please refer to 40 CFR 268.48

Section 6 – Non-Hazardous Wastes

Please list applicable waste code(s):

- 6.1) Do any State Specific Non-Hazardous Waste Codes apply?
6.2) Is this a Universal (UNIV) waste or a Recyclable Good (RG)?
6.3) Is this waste used oil as defined by 40 CFR Part 279?
a) If yes, is the total halogen content of the used oil waste stream greater than 1,000 ppm?
b) If yes, what is the source of the halogen content?

Section 7 – TSCA Information

- 7.1) What is the concentration of PCBs in the waste?
7.2) Does the waste contain PCB contamination from a source with a concentration >= 50 ppm?
7.3) Has this waste been processed into a non-liquid form?
7.4) Is this non-liquid PCB waste in the form of soil, rags, debris, or other contaminated media?
7.5) Are you a PCB capacitor manufacturer or a PCB equipment manufacturer?
7.6) Has the PCB Article (e.g., transformer, hydraulic machine, PCB-contaminated electrical equipment) been drained/flushed of all PCBs and decontaminated in accordance with 40 CFR 761.60(b)?

Section 8 – Clean Air Act Information

- 8.1) Is this waste subject to regulation under 40 CFR, Part 264, Subpart CC (VOC > 500 ppmw)?
8.2) Is this waste subject to regulation under 40 CFR, Part 63, Subpart DD (VOHAP > 500 ppmw)?
8.3) Is the site, or waste, subject to any other NESHAP/MACT standard(s)?
8.4) Does this waste stream contain Benzene?
8.5) Does the waste stream come from a facility subject to 40 CFR 61, Subpart FF (Benzene NESHAP)?
8.6) Does your facility manage the waste subject to Benzene NESHAP in a manner other than shipping off-site?
8.7) Is the generating source of this waste a facility with Total Annual Benzene (TAB) >= 10 Mg/year?
8.8) Does the waste contain >10% water?
8.9) What is the TAB quantity for your facility?
8.10) What is the total Benzene concentration in your waste?
Supporting analysis must be attached. Do not use TCLP analytical results. Acceptable laboratory methods include 8020, 8240, 8260, 602 and 624.

Section 9 – Certification

I certify that all information (including attachments) is complete and factual and is an accurate representation of the known and suspected hazards, pertaining to the waste described herein. I authorize EQ's personnel to add supplemental information to the waste approval file, provided I am contacted and give verbal permission. I authorize EQ's personnel to obtain a sample from any waste shipment for purposes of verification and confirmation. I agree that, if EQ approves the waste described herein, all such wastes that are transported, delivered, or tendered to EQ by Generator or on Generator's behalf shall be subject to, and Generator shall be bound by, the attached Standard Terms and Conditions.

If I am an agent acting on behalf of the generator, I also certify that I have permission to sign any and all waste characterization paperwork on the generator's behalf and that I can produce such certification in writing upon request.

Generator Signature Kathryn S Tait Printed Name Kathryn S Tait

V
R
R
E

STANDARD TERMS AND CONDITIONS

The Agreement between the Customer and EQ – The Environmental Quality Company and/or its member companies (hereinafter "EQ") related to or associated with Delivered Waste, as herein defined, shall be governed by the following Standard Terms and Conditions in addition to the terms and conditions contained in any Waste Profile Form, Customer Approval Quote Confirmation, Generator Approval Notification, Notice of Waste Approval Expiration, and/or Credit Agreement associated with such Delivered Waste.

The Customer may use its standard forms (such as purchase orders, acknowledgments of orders, and invoices) to administer its dealings under this Agreement for convenience purposes, but all provisions thereof in conflict with these terms and conditions shall be deemed stricken.

Definitions

The following definitions shall apply for purposes of this Agreement:

"**Acceptable Waste**" shall mean any hazardous waste, as defined under applicable State or federal law, determined by EQ as acceptable for treatment and/or disposal in accordance with this Agreement.

"**Delivered Wastes**" shall mean all wastes (i) which are transported, delivered, or tendered to EQ by the Customer; (ii) which the Customer has arranged for the transport, delivery or tender to EQ; or (iii) which are transported, delivered, or tendered to EQ under a Credit Agreement between the Customer and EQ.

"**Non-Conforming Wastes**" shall mean wastes that (a) are not in accordance in all material respects with the warranties, descriptions, specifications or limitations stated in the Waste Profile Form and this Agreement; (b) have constituents or components of a type or concentration not specifically identified in the Waste Profile Form (i) which increase the nature or extent of the hazard and risk undertaken by EQ in treating and/or disposing of the waste, or (ii) for whose treatment and/or disposal a Waste Management Facility is not designed or permitted, or (iii) which increase the cost of treatment and/or disposal of waste beyond that specified in EQ's price quote; or (c) are not properly packaged, labeled, described, or placarded, or otherwise not in compliance with United States Department of Transportation and United States Environmental Protection Agency regulations.

Control of Operations.

EQ shall have sole control over all aspects of the operation of any treatment and/or disposal facility of EQ receiving Delivered Wastes under this Agreement (hereinafter, "Waste Management Facility"), including, without limitation, maintaining EQ's desired volume of Acceptable Wastes being delivered to any Waste Management Facility by the Customer or any other person or entity.

Identification of Waste.

For each waste material to be transported, delivered, or tendered to EQ under this Agreement, the Customer shall provide, or cause to be provided, to EQ a representative sample of the waste material and a completed Waste Profile Form containing a physical and chemical description or analysis of such waste material, which description shall conform with any and all guidelines for waste acceptance provided by EQ. On the basis of EQ's analysis of such representative sample of the waste material and such Waste Profile Form, EQ will determine whether such wastes are Acceptable Wastes. EQ does not make any guarantee that it will handle any waste material or any particular quantity or type of waste material, and EQ reserves the right to the decline to transport, treat and/or dispose of waste material. The Customer shall promptly furnish to EQ any information regarding known, suspected or planned changes in the composition of the waste material. Further, the Customer shall promptly inform EQ of any change in the characteristic or condition of the waste material which becomes known to the Customer subsequent to the date of the Waste Profile Form.

Non-Conforming Wastes.

In the event that EQ at any time discovers that any Delivered Waste is Non-Conforming Waste, EQ may reject or revoke its acceptance of the Non-Conforming Waste. The Customer shall have seven (7) days to direct an alternative lawful manner of disposition of the waste, unless it is necessary by reason of law or otherwise to move the Non-Conforming Waste prior to expiration of the seven (7) day period. If the Customer does not direct an alternative disposal, at its option, EQ may return any such Non-Conforming Wastes to the Customer, and the Customer shall pay or reimburse EQ for all costs and expenses incurred by EQ in connection with the receipt, handling, sampling, analyses, transportation and return to the Customer of such Non-Conforming Wastes. If it is impossible or impractical for EQ to return the Non-Conforming Waste to the Customer, the Customer shall reimburse EQ for all costs, of any type or nature whatsoever, incurred by EQ, solely because such Delivered Waste was Non-Conforming Waste (including, but not limited to, all costs associated with any remedial steps necessary, due to the nature of the Non-Conforming Waste, in connection with material with which the Non-Conforming Waste may have been commingled and all expenses and charges for analyzing, handling, locating, preparing for transporting, storing and disposing of any Non-Conforming Waste).

Customer Warranty - Acceptable Wastes.

All Delivered Wastes shall be Acceptable Wastes and shall conform in all material respects to the description and specifications contained in the Waste Profile Form. The information set forth in the Waste Profile Form or any manifest, placard or label associated with any Delivered Wastes, or otherwise represented by the Customer or the generator (if other than the Customer) to EQ, is and shall be true, accurate and complete as of the date of receipt of the involved waste by EQ.

Customer Warranty - Title to Wastes.

Either the Customer or the generator (if other than the Customer) shall hold clear title, free of any all liens, claims, encumbrances, and charges to Delivered Waste until such waste is accepted by EQ.

Customer Warranty - Compliance with Laws.

The Customer shall comply with all applicable federal, state and local environmental statutes, regulations, and other governmental requirements, as well as directives issued by EQ from time to time, governing the transportation, treatment and/or disposal of Acceptable Wastes, including, but not limited to, all packaging, manifesting, containerization, placarding and labeling requirements.

Customer Warranty - Updating Information.

If the Customer receives information that Delivered Waste or other hazardous waste described in the Waste Profile Form, or some component of such waste, presents or may present a hazard or risk to persons, property or the environment which was not disclosed to EQ, or if the Customer or generator (if other than the Customer) has changed the process by which such waste results, the Customer shall promptly report such information to EQ in writing.

Customer Indemnity.

The Customer shall indemnify, defend and hold harmless EQ, and its affiliated or related companies, and all of their respective present or future officers, directors, shareholders, employees and agents from and against any and all losses, damages, liabilities, penalties, fines, forfeitures, demands, claims, causes of action, suits, costs and expenses (including, but not limited to, reasonable costs of defense, settlement, and reasonable attorneys' fees), which may be asserted against any or all of them by any person or any governmental agency, or which any or all of them may hereafter suffer, incur, be responsible for or pay out, as a result of or in connection with bodily injuries (including, but not limited to, death, sickness, disease and emotional or mental distress) to any person (including EQ's employees), damage (including, but not limited to, loss of use) to any property (public or private), or any requirements to conduct or incur expense for investigative, removal or remedial expenses in connection with contamination of or adverse effect on the environment, or any violation or alleged violation of any statutes, ordinances, orders, rules or regulations of any governmental entity or agency, caused or arising out of (i) a breach of this Agreement by the Customer, (ii) the failure of any warranty of the Customer to be true, accurate and complete, or (iii) any willful or negligent act or omission of the Customer, or its employees or agents in connection with the performance of this Agreement.

Force Majeure

EQ shall not be liable for any failure to accept, receive, handle, treat, and/or dispose of Delivered Waste due to an act of God, fire, casualty, flood, war, strike, lockout, labor trouble, failure of public utilities, equipment failure, facility shutdown, injunction, accident, epidemic, riot, insurrection, destruction of operation or transportation facilities, the inability to procure materials, equipment, or sufficient personnel or energy in order to meet operational needs without the necessity of allocation, the failure or inability to obtain any governmental approvals or to meet Environmental Requirements (including, but not limited to voluntary or involuntary compliance with any act, exercise, assertion, or requirement of any governmental authority) which may temporarily or permanently prohibit operations of EQ, the Customer, or the Generator, or any other circumstances beyond the control of EQ which prevents or delays performance of any of its obligations under this Agreement.

Governing Laws

This Agreement shall in all respects be governed by and shall be construed in accordance with the laws of the State of Michigan applied to contracts executed and performed wholly within such state.

Bulk Disposal Charges

Quoted bulk disposal charges for solid materials will be billed by the cubic yard, if the waste density is less than 2,000lbs./cubic yard. If waste density is greater than 2,000 lbs./cubic yard, then bulk disposal charges will be billed by the ton, regardless of the approved container.

V A I S

WASTE PROFILE FORM

For assistance in completing this document or for additional information on service offerings, please visit our website at www.usecology.com, or call 800-592-5489.

US Ecology will choose the appropriate facility and method of waste management for your waste from the technologies offered at each operation.

If you wish to direct this waste to a specific facility(s) or treatment technology please indicate here:

Waste Common Name: IDW wash water

Section 1 – Generator & Customer Information

Generator EPA ID # OH5210020736
NAICS/SIC Code
Generator Former Ravenna Army Ammunition Plant
Facility Address 8451 State Route 5
City Ravenna **State** Ohio **Zip** 44266
24-hour Emergency Response Number
 1-800-275-6629
Mailing Address 1438 State Route 534 SW
City Newton Falls **State** Ohio **Zip** 44444
Generator Contact Katie Tait
Title Environmental Specialist 2
Phone 614-336-6136 **Fax**
E-mail kathryn.s.tait.nfg@mail.mil

Internal Use Only: EQ Division
 EQ Customer No.
Invoicing Company
Address
City **State** **Zip**
Country
Invoicing Contact
Phone **Fax**
Technical Contact
Phone **Fax**
Cell Phone
E-mail

Section 2 – Shipping & Packaging Information

- 2.1) Shipping Volume & Frequency:
 a) Volume of Waste to be Shipped: 55 gallon drum
 b) Frequency: One time Month Year Other:
- 2.2) DOT Information
 a) Is this a U.S. Department of Transportation (USDOT) Hazardous Material? Yes No
 b) If "Yes", indicate the proper shipping name per 49CFR 172.101 Hazardous Materials Table:

Section 3 – Special Properties

- 3.1) Color brownish clear
- 3.2) Odor None Ammonia Amines Mercaptans Sulfur Organic Acid Amines/Ammonia
 Other:
- 3.3) Consistency at 70°F: Solid Dust/Powder Debris Sludge Liquid Gas/Aerosol Varies
- 3.4) What is the pH? ≤2 2.1-4.9 5 – 10 10.1 – 12.4 ≥12.5 N/A

3.5) What is the flash point? <90°F 90-139°F 140-199°F >200°F N/A

3.6) Does this waste exhibit any of the following properties? (check all that apply)

- | | | | | |
|--|---|--|---|--------------------------------------|
| <input checked="" type="checkbox"/> None | <input type="checkbox"/> Free Liquids | <input type="checkbox"/> Metal Fines | <input type="checkbox"/> Water Reactive | <input type="checkbox"/> Biohazard |
| <input type="checkbox"/> Shock Sensitive | <input type="checkbox"/> Oily Residue | <input type="checkbox"/> Dioxins | <input type="checkbox"/> Furans | <input type="checkbox"/> Aluminum |
| <input type="checkbox"/> Asbestos – non-friable | <input type="checkbox"/> Asbestos – friable | <input type="checkbox"/> Other Radioactive | <input type="checkbox"/> Air Reactive | <input type="checkbox"/> Isocyanates |
| <input type="checkbox"/> Biodegradable Sorbents | <input type="checkbox"/> Pyrophoric | <input type="checkbox"/> Reactive Sulfide | <input type="checkbox"/> Reactive Cyanide | <input type="checkbox"/> Explosives |
| <input type="checkbox"/> Temperature Controlled Organic Peroxide | <input type="checkbox"/> NORM | <input type="checkbox"/> TENORM | | |

Section 4 – Composition and Generating Process

4.1) Provide a physical and chemical composition of the waste (e.g. soil, water, PPE, debris, etc.). List the percent ranges of the material, either estimated or known.

Liquid 0 to 95 % to %

Soil 0 to 5 % to %
to % to %

4.2) Provide a description of the generating process. *Remediation & IDW Sites: please provide a site history.*
The facility, previously known as RVAAP, was formerly used as a load, assemble, and pack facility for munitions production. The liquid was generated from decontamination of sampling equipment used during an environmental investigation.

4.3) Are there any known previous handling or treatment issues involving this waste? Yes* No
*If yes, describe:

Section 5 – Hazardous Wastes

As determined by 40 CFR, Part 261 and State Rules:

Please list applicable waste code(s):

- 5.1) Is this waste exempted from RCRA? Yes, please provide exemption: No
- 5.2) Is this an EPA RCRA listed hazardous waste (F, K, P or U)? Yes: No
a) For F006–F009, F012, does this come from a generator that conducts a cyanide plating process? Yes No
- 5.3) Is this an EPA RCRA characteristic hazardous waste (D001-D043)? Yes: No
- 5.4) Do any State Specific Hazardous Waste Codes apply? Yes: No

If you answered 'no' to 5.2, 5.3 and 5.4, please proceed to Section 6.

5.5) EPA Source Code: EPA Form Code:

5.6) Waste Code Determination Is Based On: Generator Knowledge Analysis MSDS
Analysis and/or MSDS may be required for review and approval for hazardous and non-hazardous waste streams.

- 5.7) Does this waste exceed Land Disposal Restriction levels? Yes No
- a) Is this stream a wastewater (WW) or non-wastewater (NWW)? WW NWW
- b) If this waste stream is greater than 50% soil, does it meet the alternative soil treatment standards of 40CFR 268.49? Yes No
- c) Does this waste contain greater than 50% debris, by volume? Yes No
(Debris is greater than 2.5 inches in size.)
- d) If the debris is larger than 3 ft x 3 ft x 3 ft, please provide the approximate dimensions and weight:

5.8) If this is a characteristic hazardous waste, does it contain Underlying Hazardous Constituents? Yes* No

*If Yes, please list:

For a complete list of UHC constituents, please refer to 40 CFR 268.48

Section 6 – Non-Hazardous Wastes

Please list applicable waste code(s):

- 6.1) Do any State Specific Non-Hazardous Waste Codes apply?
6.2) Is this a Universal (UNIV) waste or a Recyclable Good (RG)?
6.3) Is this waste used oil as defined by 40 CFR Part 279?
a) If yes, is the total halogen content of the used oil waste stream greater than 1,000 ppm?
b) If yes, what is the source of the halogen content?
This is a metalworking oil/fluid containing chlorinated paraffins.
This is used oil contaminated with chlorofluorocarbons from refrigeration units.
This oil contains halogenated solvents. List specific solvents:
Other, describe:

Section 7 – TSCA Information

- 7.1) What is the concentration of PCBs in the waste?
7.2) Does the waste contain PCB contamination from a source with a concentration >= 50 ppm?
If you answered "none" or "0-49 ppm" to 7.1 and "no" to 7.2, please proceed to Section 8.
7.3) Has this waste been processed into a non-liquid form?
If yes, what was the concentration of PCBs prior to processing?
7.4) Is this non-liquid PCB waste in the form of soil, rags, debris, or other contaminated media?
7.5) Are you a PCB capacitor manufacturer or a PCB equipment manufacturer?
7.6) Has the PCB Article (e.g., transformer, hydraulic machine, PCB-contaminated electrical equipment) been drained/flushed of all PCBs and decontaminated in accordance with 40 CFR 761.60(b)?

Section 8 – Clean Air Act Information

- 8.1) Is this waste subject to regulation under 40 CFR, Part 264, Subpart CC (VOC > 500 ppmw)?
8.2) Is this waste subject to regulation under 40 CFR, Part 63, Subpart DD (VOHAP > 500 ppmw)?
8.3) Is the site, or waste, subject to any other NESHAP/MACT standard(s)?
If Yes this document serves as notification that this waste contains chemicals required to be managed in accordance with Part 61 62 63 Subpart of NESHAP/MACT standards.
8.4) Does this waste stream contain Benzene?
If you answered "no" to 8.4, please proceed to Section 9.
8.5) Does the waste stream come from a facility subject to 40 CFR 61, Subpart FF (Benzene NESHAP)?
If you answered "no" to questions 8.5, please proceed to Section 9.
8.6) Does your facility manage the waste subject to Benzene NESHAP in a manner other than shipping off-site?
8.7) Is the generating source of this waste a facility with Total Annual Benzene (TAB) >= 10 Mg/year?
8.8) Does the waste contain >10% water?
8.9) What is the TAB quantity for your facility?
8.10) What is the total Benzene concentration in your waste?
Supporting analysis must be attached. Do not use TCLP analytical results. Acceptable laboratory methods include 8020, 8240, 8260, 602 and 624.

Section 9 – Certification

I certify that all information (including attachments) is complete and factual and is an accurate representation of the known and suspected hazards, pertaining to the waste described herein. I authorize EQ's personnel to add supplemental information to the waste approval file, provided I am contacted and give verbal permission. I authorize EQ's personnel to obtain a sample from any waste shipment for purposes of verification and confirmation. I agree that, if EQ approves the waste described herein, all such wastes that are transported, delivered, or tendered to EQ by Generator or on Generator's behalf shall be subject to, and Generator shall be bound by, the attached Standard Terms and Conditions.

If I am an agent acting on behalf of the generator, I also certify that I have permission to sign any and all waste characterization paperwork on the generator's behalf and that I can produce such certification in writing upon request.

Generator Signature Kathryn S Tait Printed Name Kathryn S. Tait

V
R
R
E

STANDARD TERMS AND CONDITIONS

The Agreement between the Customer and EQ – The Environmental Quality Company and/or its member companies (hereinafter "EQ") related to or associated with Delivered Waste, as herein defined, shall be governed by the following Standard Terms and Conditions in addition to the terms and conditions contained in any Waste Profile Form, Customer Approval Quote Confirmation, Generator Approval Notification, Notice of Waste Approval Expiration, and/or Credit Agreement associated with such Delivered Waste.

The Customer may use its standard forms (such as purchase orders, acknowledgments of orders, and invoices) to administer its dealings under this Agreement for convenience purposes, but all provisions thereof in conflict with these terms and conditions shall be deemed stricken.

Definitions

The following definitions shall apply for purposes of this Agreement:

"**Acceptable Waste**" shall mean any hazardous waste, as defined under applicable State or federal law, determined by EQ as acceptable for treatment and/or disposal in accordance with this Agreement.

"**Delivered Wastes**" shall mean all wastes (i) which are transported, delivered, or tendered to EQ by the Customer; (ii) which the Customer has arranged for the transport, delivery or tender to EQ; or (iii) which are transported, delivered, or tendered to EQ under a Credit Agreement between the Customer and EQ.

"**Non-Conforming Wastes**" shall mean wastes that (a) are not in accordance in all material respects with the warranties, descriptions, specifications or limitations stated in the Waste Profile Form and this Agreement; (b) have constituents or components of a type or concentration not specifically identified in the Waste Profile Form (i) which increase the nature or extent of the hazard and risk undertaken by EQ in treating and/or disposing of the waste, or (ii) for whose treatment and/or disposal a Waste Management Facility is not designed or permitted, or (iii) which increase the cost of treatment and/or disposal of waste beyond that specified in EQ's price quote; or (c) are not properly packaged, labeled, described, or placarded, or otherwise not in compliance with United States Department of Transportation and United States Environmental Protection Agency regulations.

Control of Operations

EQ shall have sole control over all aspects of the operation of any treatment and/or disposal facility of EQ receiving Delivered Wastes under this Agreement (hereinafter, "Waste Management Facility"), including, without limitation, maintaining EQ's desired volume of Acceptable Wastes being delivered to any Waste Management Facility by the Customer or any other person or entity.

Identification of Waste

For each waste material to be transported, delivered, or tendered to EQ under this Agreement, the Customer shall provide, or cause to be provided, to EQ a representative sample of the waste material and a completed Waste Profile Form containing a physical and chemical description or analysis of such waste material, which description shall conform with any and all guidelines for waste acceptance provided by EQ. On the basis of EQ's analysis of such representative sample of the waste material and such Waste Profile Form, EQ will determine whether such wastes are Acceptable Wastes. EQ does not make any guarantee that it will handle any waste material or any particular quantity or type of waste material, and EQ reserves the right to decline to transport, treat and/or dispose of waste material. The Customer shall promptly furnish to EQ any information regarding known, suspected or planned changes in the composition of the waste material. Further, the Customer shall promptly inform EQ of any change in the characteristic or condition of the waste material which becomes known to the Customer subsequent to the date of the Waste Profile Form.

Non-Conforming Wastes

In the event that EQ at any time discovers that any Delivered Waste is Non-Conforming Waste, EQ may reject or revoke its acceptance of the Non-Conforming Waste. The Customer shall have seven (7) days to direct an alternative lawful manner of disposition of the waste, unless it is necessary by reason of law or otherwise to move the Non-Conforming Waste prior to expiration of the seven (7) day period. If the Customer does not direct an alternative disposal, at its option, EQ may return any such Non-Conforming Wastes to the Customer, and the Customer shall pay or reimburse EQ for all costs and expenses incurred by EQ in connection with the receipt, handling, sampling, analyses, transportation and return to the Customer of such Non-Conforming Wastes. If it is impossible or impractical for EQ to return the Non-Conforming Waste to the Customer, the Customer shall reimburse EQ for all costs, of any type or nature whatsoever, incurred by EQ, solely because such Delivered Waste was Non-Conforming Waste (including, but not limited to, all costs associated with any remedial steps necessary, due to the nature of the Non-Conforming Waste, in connection with material with which the Non-Conforming Waste may have been commingled and all expenses and charges for analyzing, handling, locating, preparing for transporting, storing and disposing of any Non-Conforming Waste).

Customer Warranty - Acceptable Wastes

All Delivered Wastes shall be Acceptable Wastes and shall conform in all material respects to the description and specifications contained in the Waste Profile Form. The information set forth in the Waste Profile Form or any manifest, placard or label associated with any Delivered Wastes, or otherwise represented by the Customer or the generator (if other than the Customer) to EQ, is and shall be true, accurate and complete as of the date of receipt of the involved waste by EQ.

Customer Warranty - Title to Wastes

Either the Customer or the generator (if other than the Customer) shall hold clear title, free of any all liens, claims, encumbrances, and charges to Delivered Waste until such waste is accepted by EQ.

Customer Warranty - Compliance with Laws

The Customer shall comply with all applicable federal, state and local environmental statutes, regulations, and other governmental requirements, as well as directives issued by EQ from time to time, governing the transportation, treatment and/or disposal of Acceptable Wastes, including, but not limited to, all packaging, manifesting, containerization, placarding and labeling requirements.

Customer Warranty - Updating Information

If the Customer receives information that Delivered Waste or other hazardous waste described in the Waste Profile Form, or some component of such waste, presents or may present a hazard or risk to persons, property or the environment which was not disclosed to EQ, or if the Customer or generator (if other than the Customer) has changed the process by which such waste results, the Customer shall promptly report such information to EQ in writing.

Customer Indemnity

The Customer shall indemnify, defend and hold harmless EQ, and its affiliated or related companies, and all of their respective present or future officers, directors, shareholders, employees and agents from and against any and all losses, damages, liabilities, penalties, fines, forfeitures, demands, claims, causes of action, suits, costs and expenses (including, but not limited to, reasonable costs of defense, settlement, and reasonable attorneys' fees), which may be asserted against any or all of them by any person or any governmental agency, or which any or all of them may hereafter suffer, incur, be responsible for or pay out, as a result of or in connection with bodily injuries (including, but not limited to, death, sickness, disease and emotional or mental distress) to any person (including EQ's employees), damage (including, but not limited to, loss of use) to any property (public or private), or any requirements to conduct or incur expense for investigative, removal or remedial expenses in connection with contamination of or adverse effect on the environment, or any violation or alleged violation of any statutes, ordinances, orders, rules or regulations of any governmental entity or agency, caused or arising out of (i) a breach of this Agreement by the Customer, (ii) the failure of any warranty of the Customer to be true, accurate and complete, or (iii) any willful or negligent act or omission of the Customer, or its employees or agents in connection with the performance of this Agreement.

Force Majeure

EQ shall not be liable for any failure to accept, receive, handle, treat, and/or dispose of Delivered Waste due to an act of God, fire, casualty, flood, war, strike, lockout, labor trouble, failure of public utilities, equipment failure, facility shutdown, injunction, accident, epidemic, riot, insurrection, destruction of operation or transportation facilities, the inability to procure materials, equipment, or sufficient personnel or energy in order to meet operational needs without the necessity of allocation, the failure or inability to obtain any governmental approvals or to meet Environmental Requirements (including, but not limited to voluntary or involuntary compliance with any act, exercise, assertion, or requirement of any governmental authority) which may temporarily or permanently prohibit operations of EQ, the Customer, or the Generator, or any other circumstances beyond the control of EQ which prevents or delays performance of any of its obligations under this Agreement.

Governing Laws

This Agreement shall in all respects be governed by and shall be construed in accordance with the laws of the State of Michigan applied to contracts executed and performed wholly within such state.

Bulk Disposal Charges

Quoted bulk disposal charges for solid materials will be billed by the cubic yard, if the waste density is less than 2,000lbs./cubic yard. If waste density is greater than 2,000 lbs./cubic yard, then bulk disposal charges will be billed by the ton, regardless of the approved container.

VALID

WASTE MANIFEST

37435

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number
OH5 210 020 736

2. Page 1 of 2

3. Emergency Response Phone
(800) 857-8061

4. Waste Tracking Number
104148

5. Generator's Name and Mailing Address
FORMER RAVENNA ARMY AMMUNITION
1438 STATE ROUTE 534 SW
NEWTON FALLS, OH 44444

Generator's Site Address (if different than mailing address)
8451 STATE ROUTE 5
RAVENNA, OH 44266

Generator's Phone:
(614) 336-6136

6. Transporter 1 Company Name
EQ INDUSTRIAL SERVICES

U.S. EPA ID Number
MIK 435 642 742

7. Transporter 2 Company Name
Smith Systems Trans.

U.S. EPA ID Number
NEP986382133

8. Designated Facility Name and Site Address
EQIS TRANSFER & PROCESSING
2650 N. SHADELAND AVENUE
INDIANAPOLIS, IN 46219
Facility's Phone: (317) 247-7160

U.S. EPA ID Number
INR 000 125 641

9. Waste Shipping Name and Description

10. Containers

11. Total Quantity

12. Unit Wt./Vol.

1. NON-REGULATED MATERIAL

No. 001

Type DM

00117

P

2. NON-REGULATED MATERIAL

No. 001

Type DM

00242

P

13. Special Handling Instructions and Additional Information
1. G184339IND / soil 2. G184351IND / IDW WASH WATER (T:14.08.45040.1)

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Officer's Printed/Typed Name
Kevin Seolak

Signature
[Signature]

Month Day Year
07 29 16

15 International Shipments
 Import to U.S.
 Export from U.S.

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name
Ken Good

Signature
[Signature]

Month Day Year
07 29 16

Transporter 2 Printed/Typed Name
Vincent G. Roberts

Signature
[Signature]

Month Day Year
07 31 16

17. Discrepancy

17a. Discrepancy Indication Space
 Quantity Type Residue Partial Rejection Full Rejection

17b. Alternate Facility (or Generator)

Manifest Reference Number:

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator. Certification of receipt of materials covered by the manifest except as noted in item 17a

Printed/Typed Name
Steven Benetz

Signature
[Signature]

Month Day Year
08 19 16

www.eqonline.com

1-800-592-5489

Environmental Quality Company

TRANSPORTER INTL

DESIGNATED FACILITY

EQ The Environmental Quality Company

1-800-592-5489

www.eqonline.com

24. Generator's Name Former Ravenna Army Ammunition Plant

25. Transporter 3 Company Name EQ Industrial Services U.S. EPA ID Number MIK 435 642 742

26. Transporter 4 Company Name S & C Transport U.S. EPA ID Number MIK 1263 99684

| 27a. HM | 27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) | 28. Containers | | 29. Total Quantity | 30. Unit Wt./Vol. | 31. Waste Codes | | |
|--|---|----------------|------|--------------------|-------------------|-----------------|--|--|
| | | No. | Type | | | | | |
| <p style="font-size: 2em; transform: rotate(-45deg); opacity: 0.5;">Transporter's Copy</p> | | | | | | | | |

GENERATOR

TRANSPORTER

32. Special Handling Instructions and Additional Information

33. Transporter 3 Acknowledgment of Receipt of Materials
Printed/Typed Name: Tanya Steward Signature: [Signature] Month: 10 Day: 01 Year: 16

34. Transporter 4 Acknowledgment of Receipt of Materials
Printed/Typed Name: Tom Carey Signature: [Signature] Month: 8 Day: 31 Year: 16

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

THIS PAGE INTENTIONALLY LEFT BLANK.